

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

A Component Unit of the
Commonwealth of Pennsylvania

COMPREHENSIVE ANNUAL FINANCIAL REPORT

for the year ended December 31, 2003



Including the Independent Auditors' Report of Financial Statements
for the years ended December 31, 2003 and 2002

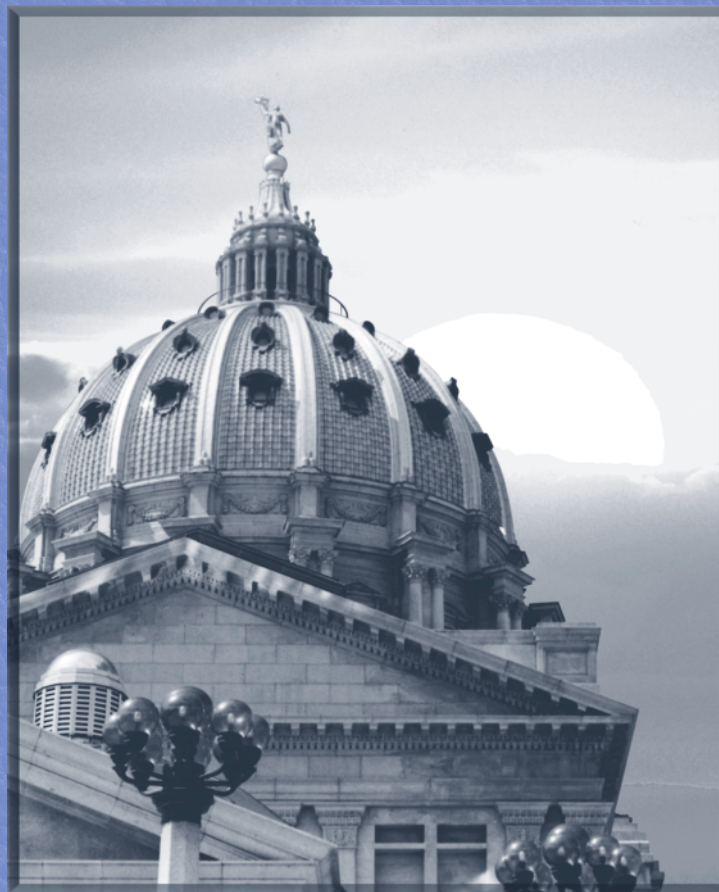
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for the year ended December 31, 2003



John R. Brosius
Executive Director

Francis J. Donlevy
Director, Office of Financial Management

State Employees' Retirement System
30 North Third Street • P.O. Box 1147
Harrisburg, PA 17108-1147

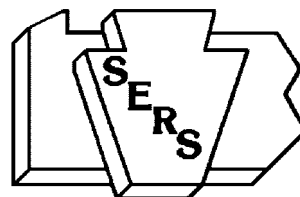
Including the Independent Auditors' Report of Financial Statements
for the years ended December 31, 2003 and 2002



NICHOLAS J. MAIALE
CHAIRMAN

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM

30 NORTH THIRD STREET
P.O. BOX 1147
HARRISBURG, PENNSYLVANIA 17108-1147
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June 2004

Honorable Edward G. Rendell, Governor
Commonwealth of Pennsylvania

Members, Pennsylvania General Assembly
Members, Pennsylvania State Employees' Retirement System

Dear Governor Rendell, Legislators and Members:

The Board of Trustees of the Pennsylvania State Employees' Retirement System ("SERS") is pleased to present our *Comprehensive Annual Financial Report* ("CAFR") on the SERS Fund for calendar year 2003.

Within the CAFR, you will find relevant financial, investment, and actuarial reports with introductions from SERS management and the funds' consulting actuary. Given the state of global investment markets and overall financial environment, SERS continues to encounter many challenges. However, as a result of long-term investment portfolio planning and the prudent management of Fund assets, the System is well prepared to meet its obligations and again this year maintains the fully funded status it has enjoyed since 1992.

SERS' 11-member Board represents the interest of public employees, public employers, and the taxpayer, in careful balance. SERS Board, staff, and I will continue to pursue prudent long-term investment strategies to assure the solvency of the Fund and the quality of pension-related services to all SERS members.

On a personal note, I want to thank John Brosius for his 20 years of outstanding service as SERS' Executive Director. John is retiring on June 25, 2004 and leaves the Fund in excellent condition, as evidenced by the fully funded status and other enhanced services which would not have been possible without his leadership. He will be greatly missed and the Board, staff and I wish him well in his future endeavors.

Sincerely,

Nicholas J. Maiale
SERS Board Chairman

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Prepared by the staff of the Pennsylvania State Employees' Retirement System

Board of Trustees

Honorable Nicholas J. Maiale

Chairman



Michael J. Acker

Senior Vice President Triad Strategies



David R. Fillman

Executive Director, AFSCME Council 13



Honorable Gibson E. Armstrong

State Senator



Honorable Robert W. Godshall

State Representative



Honorable Robert A. Bittenbender

Former State Secretary of the Budget



Honorable Barbara Hafer

State Treasurer



Honorable Raphael J. Musto
State Senator



Honorable M. Joseph Rocks
Retired Member and Former State Senator



Honorable Thomas G. Paese
Former State Secretary of Administration



Honorable Michael R. Veon
State Representative



Mission Statement

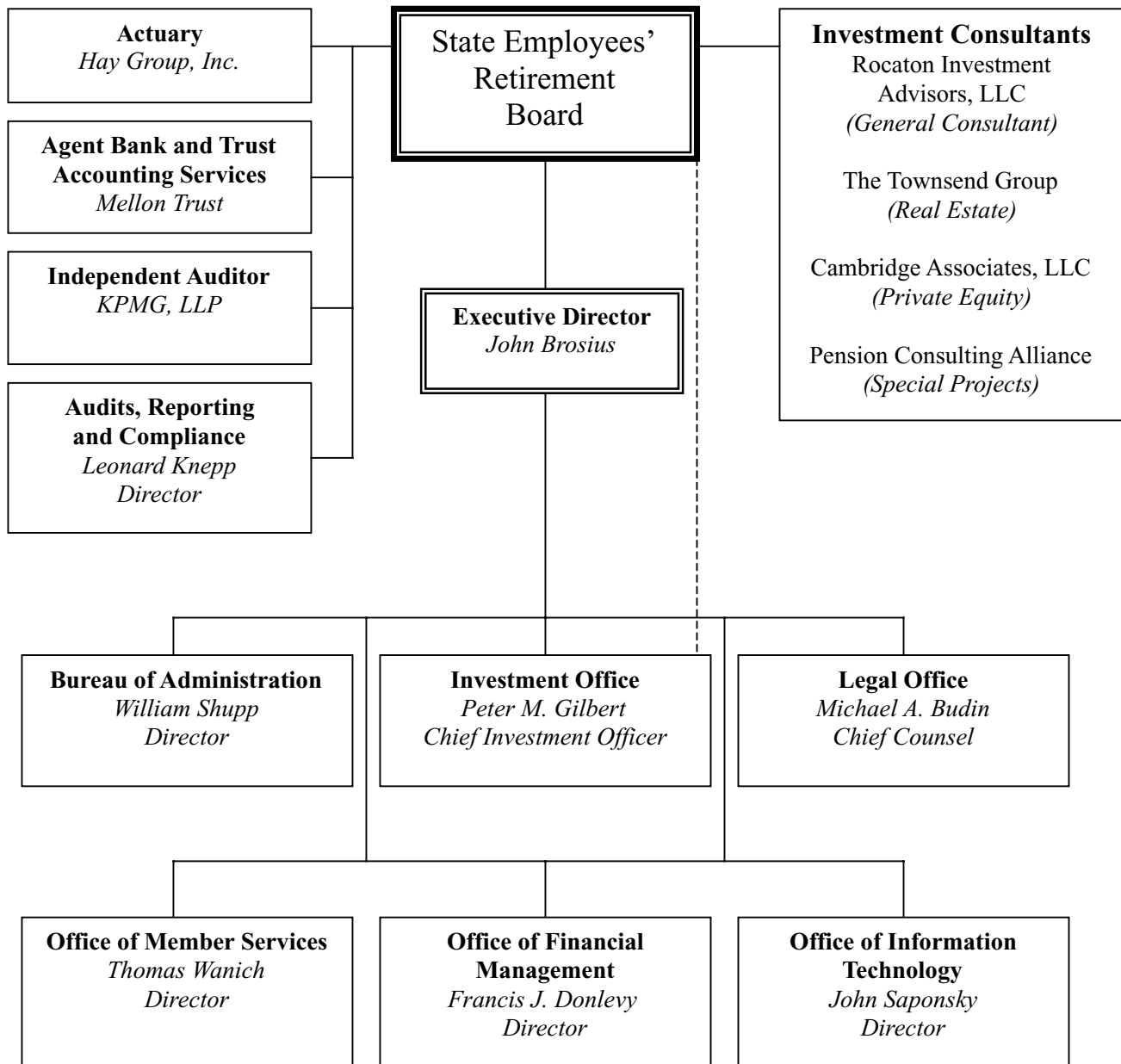
Plan Administration: To administer the retirement benefits plan for state employees and elected officials in accordance with Pennsylvania statutes;

Member Services: To provide effective services to all active and retired members;

Management of Retirement Fund Assets: To accumulate, manage and disburse the retirement Fund assets in accordance with fiduciary standards and at a reasonable cost to Commonwealth taxpayers;

Investment Policy: To maximize investment returns while exercising a prudent person investment policy.

SERS Organizational Chart



Certificate of Achievement for Excellence in Financial Reporting

Presented to
Commonwealth of Pennsylvania
State Employees' Retirement
System

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
December 31, 2002

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



A handwritten signature in black ink, appearing to read "Edward Haney".

President

A handwritten signature in black ink, appearing to read "Jeffrey R. Emer".

Executive Director



**Commonwealth of Pennsylvania
State Employees' Retirement System**



RESOLUTION

WHEREAS, John R. Brosius is resigning as Executive Director of the Pennsylvania State Employees' Retirement System on June 25, 2004, the position he was appointed to on November 29, 1984, and has performed as a dedicated and innovative member of the SERS staff, serving faithfully and conscientiously in his capacity; and

WHEREAS, Mr. Brosius has exhibited a high degree of competence, diligence, and devotion to the activities of the System serving the Board and Fund for the past twenty years of his thirty-year career with the Commonwealth of Pennsylvania, attaining many significant milestones contributing to the successful administration of the agency and operation of the \$25 billion retirement fund; and

WHEREAS, Mr. Brosius was instrumental in the implementation of significant program developments including the Retirement Counseling Program, establishment of a full-time Legal Office, deployment of a professional Investment Office Staff, development of a Knowledge Management Program, and a full-time Information Technology Office to include successful completion of SERS web site development, a Customer Relations Information System (CRIS), a State Employees' Retirement Information System (SERIS), a Document and Work Process Management System (DAWPM), and an Investment Data Warehouse; and

WHEREAS, Mr. Brosius played a key role in planning the effective implementation of major plan legislation affecting the Retirement Code, SERS achievement and maintenance of being fully funded, the dramatic lowering of employer costs, SERS achievement of annual awards for financial excellence, and the establishment of a successful Deferred Compensation Plan; and

WHEREAS, Mr. Brosius is being honored for his outstanding leadership and tenacious pursuit of excellence at the State Employees' Retirement System; now therefore be it

RESOLVED, That the Pennsylvania State Employees' Retirement Board expresses its sincere appreciation to John R. Brosius for his professional excellence and dedication to the System and its members, and wishes him the best of health and happiness in his retirement; and be it further

RESOLVED, That the original resolution be transmitted to John R. Brosius, and a copy included in the minutes.

June 9, 2004
Harrisburg, Pennsylvania

Nicholas J. Maiale, Chairman

Michael J. Acker

Gibson E. Armstrong

Robert A. Bittenbender

David R. Fillman

Robert W. Godshall

Barbara Hafer

Raphael J. Musto

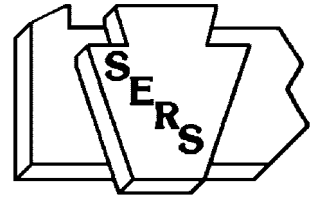
Thomas G. Paese

M. Joseph Rocks

Michael R. Veon



COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
30 NORTH THIRD STREET - P.O. BOX 1147
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www.sers.state.pa.us



Pennsylvania State Employees' Retirement System Board
Harrisburg, PA 17108-1147

May 30, 2004

Dear Mr. Chairman and Members of the Board:

We are pleased to present to you the Comprehensive Annual Financial Report ("CAFR") of the Pennsylvania State Employees' Retirement System (the "System" or "SERS") for the calendar year ended December 31, 2003.

Financial Information

The System's management is responsible for the preparation, accuracy and objectivity of the information included in this report. The basic financial statements are prepared in accordance with generally accepted accounting principles as promulgated by the Governmental Accounting Standards Board. Users of the financial statements are encouraged to review the Management's Discussion and Analysis ("MD&A") which accompanies the basic financial statements and discusses the cause and effects of market conditions, legislation and changes in operations that affected the financial results and funded status of the System.

SERS maintains an effective system of internal controls designed to provide reasonable assurance that assets are properly safeguarded, transactions are properly executed and that the financial statements conform to generally accepted accounting principles. The System's Internal Audits, Reporting and Compliance department provides a continuing review of the adequacy and effectiveness of the System's internal control structure. Also, our independent external auditors, KPMG, conduct an annual audit of the financial statements in accordance with generally accepted auditing standards. Their audit includes tests and procedures designed to provide reasonable assurance that the financial statements are fairly presented. The external auditors have full and unrestricted access to the SERS Board of Trustees to discuss their audit and related findings regarding the integrity of financial reporting and adequacy of the internal control structure.

The System also receives independent financial audits on all of its private equity, venture capital, pooled real estate, and absolute return fund-of-funds limited partnerships, as well as audits for its directly held real estate portfolios. Additionally, the System receives audited statements on investments in collective trust funds, for example the BGI S&P 500 index fund and many of the emerging market funds.

Awards

We are very pleased to note that the Government Finance Officers Association of the United States and Canada ("GFOA") again awarded the Certificate of Achievement for Excellence in Financial Reporting to the Pennsylvania State Employees' Retirement System for the year ended December 31, 2002. The Certificate of Achievement is a national award, recognizing conformance with the highest standards for preparation of a State and local government financial report.

In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

Business Plan

In addition to the investment and financial aspects of the Fund, the System has several business goals, which support our vision of providing the best information, education, and counseling to help our members plan and prepare for retirement security. Initiatives include:

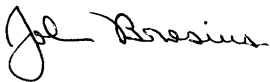
- Business continuity efforts to prepare for possible business interruptions
- Continuation of the corporate governance program
- Member demographic analysis to prepare for increased service demands
- Innovative member education techniques that meet the needs of different generations of members

Acknowledgements

This report reflects the dedicated efforts of the SERS staff under the direction of the SERS Board of Trustees. We would like to take this opportunity to express our gratitude to you, the staff, our advisors and others who have worked diligently to administer the Plan, enhance delivery of member services and manage the Plan's assets in a prudent fashion.

We will continue to work hard administering the System in a manner which will ensure the accurate timely payment of benefits, prompt and courteous service delivery that will keep pace with our membership's changing needs, and to minimize the cost of the Fund to the taxpayers of the Commonwealth through prudent and diligent management of the Fund's assets.

Respectfully submitted,



John R. Brosius
Executive Director



Francis J. Donlevy
Director, Office of Financial Management

FINANCIAL



Independent Auditors' Report

225 Market Street
Suite 300
P.O. Box 1190
Harrisburg, PA 17108-1190



Commonwealth of Pennsylvania
State Employees' Retirement System Board:

We have audited the accompanying statements of plan net assets of the Commonwealth of Pennsylvania State Employees' Retirement System (a component unit of the Commonwealth of Pennsylvania) as of December 31, 2003 and 2002, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of the Commonwealth of Pennsylvania State Employees' Retirement System as of December 31, 2003 and 2002, and its changes in plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The information included in Management's Discussion and Analysis and Required Supplemental Schedules 1 and 2 and the notes thereto is not a required part of the basic financial statements but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information included in Supplemental Schedules 1 and 2 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

The introductory section, investment section, actuarial section and statistical section as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. The introductory, investment, actuarial and statistical sections have not been subject to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

KPMG LLP

April 16, 2004

Management's Discussion and Analysis

This section presents Management's Discussion and Analysis of the Pennsylvania State Employees' Retirement System's (the "System") financial statements and the significant events and conditions which affected the operations and performance of the System during the years ended December 31, 2003 and 2002.

The Management's Discussion and Analysis includes forward-looking statements that involve certain risks and uncertainties. Actual results and performance may differ materially from those expressed or implied in the forward looking statements due to a wide range of factors including: changes in securities markets, general economic conditions, interest rates, energy policies, and legislation as well as global conflicts.

Overview of the Financial Statements and Accompanying Information

- 1) **Fund Financial Statements.** The System presents Statements of Plan Net Assets as of December 31, 2003 and 2002 and Statements of Changes in Plan Net Assets for the years then ended. These statements reflect resources available for the payment of benefits as of year-end, and the sources and use of those funds during the year.
- 2) **Notes to Financial Statements.** The notes to financial statements are an integral part of the financial statements. We encourage our readers to review them because the additional detailed information will provide a better understanding of the financial statements. Information in the notes discloses the System's organization, benefits and contributions, how asset values are determined, the use of derivatives in managing the System's assets, and contingencies and commitments.
- 3) **Required Supplementary Information.** The required supplementary information consists of:
 - Two schedules concerning the funded status of the System and employer contributions,
 - Related notes to those schedules discussing actuarial assumptions and information, and this
 - Management's Discussion and Analysis.
- 4) **Other Supplementary Schedules.** Other schedules include detailed information on administrative expenses incurred by the System, a breakout of investment manager fees by asset class, and fees paid to consultants for professional services.

Financial Analysis

The System provides retirement benefits to the employees of the Commonwealth of Pennsylvania and certain other public agencies. The System's benefits are funded through member and employer contributions, and investment income. The net assets of the System increased approximately \$3.7 billion and decreased approximately \$3.8 billion during the years ending December 31, 2003 and 2002, respectively, as reflected in the table on page 8. The increase was reflective of the strong rebound in global equity markets from the prior year and represented the strongest returns since 1995. Despite difficult markets in recent years, the System remains fully funded under the actuarial assumptions used for assets and liabilities. Every five years the System undergoes an Actuarial Liability study to determine whether the assumptions used in the annual actuarial valuation are representative of current and anticipated trends. Annually, the System reviews and modifies, if necessary, its five-year investment plan. These processes enable the System to position itself to respond to the changing dynamics and fulfill its mission. As the baby boomer generation enters into its retirement years, the System is preparing to

Management's Discussion and Analysis

process more retirements, and pay more benefits. Indeed, over 9,000 current employees have over 30 years of service, and average salaries of \$59,000. These demographics, coupled with recent changes to retiree health care provisions which raise certain costs and reduce certain benefits, indicate that retirements will be processed at an increasing rate and that benefit expense will continue to escalate.

Funded Ratio

The funded ratio of the plan measures the ratio of actuarially determined assets against actuarial liabilities and is a good indicator of the fiscal strength of a pension fund's ability to meet obligations to its members. The System is required to perform an annual actuarial valuation by statute. The actuarial process to develop the funded ratio is highly dependent on estimates and assumptions, particularly those regarding investment returns, payroll increases, inflation and demographics. In addition, the selection of methods, such as amortization periods, affect employer contribution rates and the funded ratio of the plan. The date of the most recent available valuation showed the funded status of the System declining to 104.9% at December 31, 2003 from 107.2% at December 31, 2002. The amount by which actuarially determined assets exceeded actuarially determined liabilities was \$1.3 billion and \$1.8 billion for the years ended December 2003 and 2002, respectively. The decrease in the funded ratio was due mostly to the amortization of investment returns which were below actuarial assumptions for the years 2000–2002. The funded ratio may continue to decrease as those losses are amortized in future years.

Member Contributions

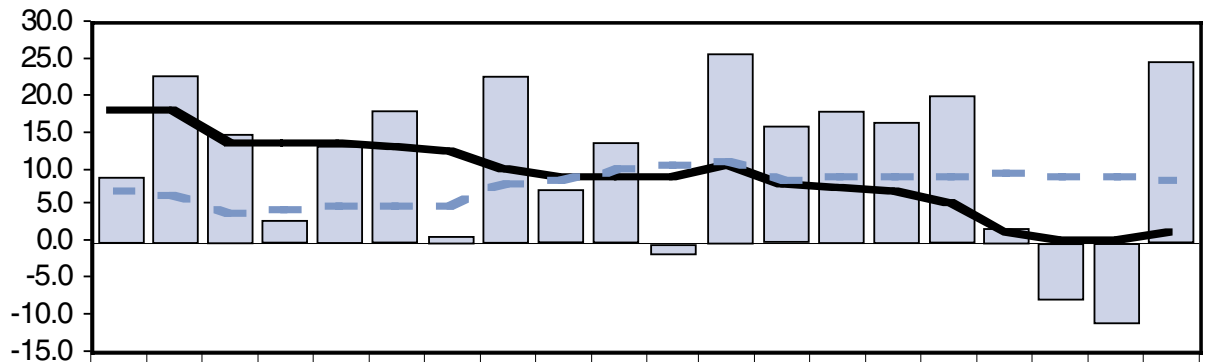
Additions to plan net assets include employer and member contributions and net income from investment activities. Member contributions were approximately \$308 million, \$304 million, and \$241 million for the years ended December 31, 2003, 2002 and 2001, respectively, an increase of approximately \$4 million in 2003. The modest change was due to relatively flat payroll levels of \$4.9 billion in 2003 versus \$4.8 billion in 2002. The \$63 million increase in 2002 was the result of an increase in the member contribution rate provided by the enactment of Act 9. The member contribution rate is set by statute and increased for most members to 6.25% from 5.0% of the members' gross salary.

Employer Contributions

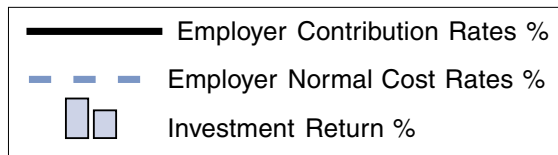
Prudent investment of assets has enabled the System to achieve and maintain fully funded status while keeping employer contribution rates at historically low levels. The composite employer rate, which had exceeded 12% as recently as 1990 and was as high as 18% in the early 1980's, has dropped to levels below 2% in recent years. This has resulted in employer contributions decreasing from over \$419 million in 1990 to less than \$70 million in 2003. This is even more impressive when considering the active membership payroll has grown from \$3.2 billion in 1990 to over \$4.9 billion last year. The benefits of this performance pass directly back to the participating Commonwealth agencies and the taxpayers of Pennsylvania. See the Chart below which presents the relationship between investment returns and contribution rates. The Normal Cost is the cost of benefits to be earned in the coming year. In theory, if the unfunded actuarial liability were zero, and there was no deviation from the actuarial assumptions or amendments to the Retirement code, the normal cost would be that amount required to fund the on-going liabilities for plan participants. The chart below reflects the direct relationship of investment returns to the employer contribution rate. When returns are strong, as in the 1990's, the employer's level of contributions are below the Normal Cost.

Management's Discussion and Analysis

History of SERS' Employer Contribution Rates and Investment Returns



	'84	'85	'86	'87	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03
Employer Contribution Rates %	18.1	18.0	13.1	13.1	13.1	13.0	12.3	9.9	8.9	8.9	8.9	10.3	7.7	7.3	6.7	5.0	1.4	-	-	1.1
Employer Normal Cost Rates %	6.8	6.4	3.6	4.5	4.7	4.7	4.7	7.9	8.5	9.8	10.2	10.7	8.5	8.9	9.0	9.0	9.0	8.7	8.6	8.4
Investment Return %	9.4	23.1	15.2	3.3	12.8	17.8	1.0	22.6	7.4	13.2	(1.1)	25.2	15.9	18.0	16.3	19.9	2.2	(7.9)	(10.2)	24.3



Employer contributions increased to approximately \$69 million in 2003, after decreasing to \$51 million in 2002 from approximately \$77 million in 2001. The increase was due to the composite employer contribution rate increasing to 1.07% as of July 1, 2003 from a rate that was almost 0% of reported payroll, since July 1, 2001. This represents a reversal in the direction of rates in recent years after decreases from 5.0% and 1.39% in 1999 and 2000, respectively. The increase in the rate was due mostly to amortizing the difference of recent actual investment returns versus the 8.5% estimate used for actuarial valuations. As a result, because recent investment returns have been below the actuarially assumed rate of 8.5%, the employer rate is projected to increase in future years. Ultimately, the employer rate is based on the outcome of market returns and changes in plan demographics. In 2002, the employer rate for most Class A and AA members, as defined, which included over 90% of all state employees, was set at 0%. However, the System continued to receive employer contributions for certain classes of employees, specifically law enforcement, judiciary and the legislature. Receipts for contributions for those members, along with transfers of employee contributions from other Pennsylvania state retirement systems, comprised the balance of the employer contributions recognized during 2002 and 2003.

Net Investment Income

The Investment portfolio performance produced investment returns of 24.3%, -10.9%, and -7.9% for the years 2003, 2002 and 2001 respectively. That performance generated net investment income totaling approximately \$4.9 billion during 2003, versus losses of \$2.7 billion in 2002 and \$2.2 billion in 2001. Strong global equity markets fueled the performance in 2003 as the domestic Russell 3000 index returned 31.1% and the MSCI World ex US Index returned 40.0%. Conversely, weak global equity markets in 2002 and 2001 led to negative returns. For the 10-year period ended December 31, 2003, the System earned a compounded rate of return of 9.4% which exceeded the actuarial assumption of 8.5%.

Management's Discussion and Analysis

The most significant deduction from investment income is investment manager fees. The System's assets are managed 100% by external investment advisors hired by the Board. Many of these managers are paid a fee based on the assets under management. Accordingly, those managers were generally compensated more in 2003 than in prior years because of the effect of increasing asset values. However, the industry practice for the general partners in limited partnership holdings is to pay fees based on commitments to the partnership during the initial years. The \$34 million increase in investment expenses in 2003 was due primarily to an increase of \$24 million associated with positive performance of the System's absolute return fund-of-fund strategies and its respective incentive fees and approximately \$6 million related to increased alternative investment limited partnership commitments. Commitments to alternative investments were increased as part of meeting the long-term allocation goals of the Fund. Increased expenses in 2002, were the result of the System's implementation of the absolute return fund-of-funds strategy offset by decreases related to the termination of the tactical asset allocation asset class and the general decrease in assets under management.

Benefits, Refunds and Expenses

The most significant recurring deduction to Plan Net Assets is benefit payments. During 2003 and 2002, the System paid out approximately \$1.6 billion and \$1.4 billion, respectively, in benefits and refunds, an increase of approximately 14% in 2003. Those higher payments were due primarily to an increase in the number of retirees, a full year's effect of Phase 1 and six months effect of Phase 2 of a COLA which became effective July 1, 2002, and July 2, 2003 respectively. Phase 1 of the COLA provided an average benefit increase of 13.86% while the average increase for Phase 2 was 6.99%. New retirees generally are retiring with a much higher annual benefit than those being removed from rolls. The System expects retirees to be added to the rolls at increasing rates for the next several years thereby increasing annual benefit expenses. The System was established in 1923 but did not pay more than \$1 billion in annual benefits until 1997. Based on recent actuarial projections, the System expects benefit payments to reach \$2 billion by 2006 and \$3 billion by 2010. Benefits paid in 2002 increased due to the increased number of retirees, the first six months effect of Phase 1 of the COLA, as well as the effect of a full year of new retirements of Class AA members. The table below shows the increase in retirees and monthly benefit payments since 2001.

	Growth in Monthly Benefits		
	Dec 2003	Dec 2002	Dec 2001
Monthly Benefit Payments	\$111 Million	\$97 Million	\$86 Million
Retirees	94,412	91,228	89,217

The administrative costs of the System represented less than 0.11% of average assets in 2003 and less than 0.09% in 2002. All costs were within budget.

Plan Assets

During 2003, investments allocated to domestic and international equity portfolios increased approximately \$2.1 billion and \$1.4 billion, respectively. The increase is attributable to the strong rebound in global equity markets. Conversely, declines in the equity portfolios during the year 2002 were the results of one of the worst periods ever for equity markets in the modern era as the total fund return slipped to -10.9% in 2003. One-year returns on asset classes are presented in the following table:

Management's Discussion and Analysis

Asset Class	2003	2002	2001
Domestic Equities	34.3 %	-19.1 %	-9.0 %
International Equities	40.6	-16.0	-15.6
Fixed Income Securities	12.7	6.8	5.2
Cash / STIF	1.3	2.4	3.4
Tactical Asset Allocation	N/A	N/A	-8.0
Real Estate	10.8	5.2	7.1
Private Equity	11.9	-6.9	-16.2
Venture Capital	-14.8	-27.0	-36.2
Commodities	20.7	31.8	N/A
Total Fund	24.3 %	-10.9 %	-7.9 %

The System values its assets at “fair value” as discussed in the accounting policies footnote 2(c) to the financial statements. Fair value is the value the System expects to receive in a current sale between a willing buyer and a willing seller that are equally motivated; that is, other than a forced or liquidation sale. The value of publicly traded securities, stocks and bonds, are determined using the latest quote from national exchanges or pricing services. Those prices reflect the securities’ pricing at the close of business and are affected by such items as liquidity, current events and the size of lots being traded. Real Estate is valued using appraised values by approved appraisers who meet specified professional qualifications. The appraisal process involves a significant amount of judgment and estimates. As a result, the ultimate value on sale of the asset may differ from the appraised value.

Values for investments in private equity and venture capital limited partnerships are determined by the general partners and by valuation committees. The partnerships’ investments, as well as the assumptions and estimates used in developing the investment values, are subject to an annual independent audit. Because the investments in those partnerships are generally illiquid and holding periods may last for several years, the ultimate value realized by the System on the disposition may differ from the estimated values reflected in our financial statements, and those differences could be material.

During 2002, the System allocated approximately \$2.5 billion dollars to absolute return fund-of-funds strategies. The advisors for those fund-of-funds invest in other fund managers with diverse investment strategies designed to provide positive returns, independent of the underlying financial markets, in both favorable and unfavorable market conditions. These combination of funds are designed to be beta neutral. To reintroduce the market return, and maintain the strategic asset allocation policy, the System increased its use of derivatives by entering into S&P 500 swap contracts. The combination of the S&P 500 swaps and the absolute return fund-of-funds, if successful, could earn S&P 500 returns plus an excess return from the absolute return fund-of-funds. On December 30, 2003 the System allocated an additional \$1.8 billion to the fund-of-funds managers and increased the notional value of outstanding S&P 500 swaps by the same amount.

The System earns additional investment income by lending investment securities to brokers. The brokers provide collateral to the System for borrowed securities equal to 102% of the borrowed securities. The System invests the collateral to earn interest. Income, net of expenses, from security lending is dependent on the volume of lending generated at the custodian bank. Net lending revenue during 2003 and 2002 was approximately \$7.3 million and \$8.4 million, respectively. While volumes were down in 2003, the System was able to earn higher margins due to demand for its small cap equity and investment grade fixed income securities.

Derivatives

The System uses derivatives as a means to provide market exposure to domestic stocks and commodity asset classes and to manage interest rate risk in the fixed income portfolios. Used properly, these derivatives deliver returns similar to indexed

Management's Discussion and Analysis

returns in the respective asset classes in a cost efficient manner without disrupting the liquidity needs of the System. The System's investment advisors manage counterparty credit risk by entering into contracts with parties with strong credit ratings and by establishing collateral requirements. The System monitors derivative levels and types to ensure that portfolio derivatives are consistent with the intended purpose and at the appropriate level.

Liquidity

In 2002, the Board approved, as part of the Five-Year Annual Investment Plan, establishing a benefit reserve equal to three years of benefits payments, or 20% of the total fund. The function of the reserve is to provide ample liquidity during periods of distressed equity markets in order to mitigate the need to sell equities at distressed prices to meet benefit needs. Investments in Real Estate, Venture Capital and Private Equity Limited Partnerships and High Yield are generally considered illiquid. Holdings in the fund-of-funds investments also have liquidity constraints governed by the respective partnership agreements.

Act 2003-40

On December 10, 2003, Governor Rendell signed Act 2003-40 ("Act 40") into law. The significant provisions of the law were to change certain actuarial methods used to amortize the unfunded liabilities. The selection of actuarial methods has a significant impact in developing employer contribution rates. The changes enacted by Act 40 are presented in the table below:

	Act 2003-40	Prior Method
Pre-Act 2001-9 funding credit amortization period	10 Years	10 Years
Act 2001-9 liability amortization period	30 Years	10 Years
Amortization period for all post 2000 gains and losses	30 Years	10 Years
Amortization period for existing and future COLAs and benefit enhancements	10 Years	10 Years
Floor (minimum) on total employer rate	Fiscal Year 2004 – 2% Fiscal Year 2005 – 3% Fiscal Year 2006 – 4%	1% permanent

Immediately, Act 40 is expected to reduce employer contributions over a 10-year period by approximately \$5 billion. Under Act 40, employer contributions rates are expected to climb from 2.0% of payroll at July 1, 2004 to approximately 8.8% July 1, 2008; this compares to the contribution rates rising from 3.5% to 20.3% over the respective period under the previous 10-year amortization period. The lower rates are possible because the Act lengthened the payment period over 30 years, rather than the 10-year period previously used as shown in the chart above. However, this will likely result in the employers funding a substantially larger amount over the 30 year period due to financing costs and the opportunity loss by not having contribution monies available to invest and compound in the immediate period.

Management's Discussion and Analysis

Act 2002-38

On April 23, 2002, the governor of Pennsylvania signed Act 2002-38 ("Act 38") into law. The significant provisions of the bill were to pass a two-phase cost of living allowance ("COLA"). Members in the first phase, those who retired prior to July 2, 1990, received COLA increases ranging from 8.0% to 25.0% depending on their date of retirement effective July 1, 2002. Members in the second phase, those who retired between July 2, 1990 and July 1, 2002, received COLA increases ranging from 2.27% to 9.0% depending on their date of retirement effective July 2, 2003. Members of Class AA, T-D and D-4 were excluded from the COLA. These and other provisions of Act 38 are discussed in footnote 10 of the accompanying financial statements.

CONDENSED FINANCIAL INFORMATION

Net Assets

(in Millions)

Assets	2003	Increase (Decrease)	2002	Increase (Decrease)	2001
Total Receivables	\$ 164	\$ (291)	\$ 455	\$ 175	\$ 280
Total Investments	24,808	3,449	21,359	(3,803)	25,162
Security Lending Collateral Pool	<u>1,568</u>	<u>333</u>	<u>1,235</u>	<u>22</u>	<u>1,213</u>
Total Assets	<u>26,540</u>	<u>3,491</u>	<u>23,049</u>	<u>(3,606)</u>	<u>26,655</u>

Liabilities

Accounts Payable	48	8	40	(4)	44
Investment Purchases Payable	388	(506)	894	202	692
Obligations Under Security Lending	<u>1,568</u>	<u>333</u>	<u>1,235</u>	<u>22</u>	<u>1,213</u>
Total Liabilities	<u>2,004</u>	<u>(165)</u>	<u>2,169</u>	<u>220</u>	<u>1,949</u>
Total Net Assets	<u>\$24,536</u>	<u>\$3,656</u>	<u>\$20,880</u>	<u>(\$3,826)</u>	<u>\$24,706</u>

Changes in Net Assets

Additions	2003	Increase (Decrease)	2002	Increase (Decrease)	2001
Member Contributions	\$308	\$ 4	\$304	\$ 63	\$ 241
Employer Contributions	69	18	51	(26)	77
Investment Income	<u>4,935</u>	<u>7,666</u>	<u>(2,731)</u>	<u>(505)</u>	<u>(2,226)</u>
Total Additions	<u>5,312</u>	<u>7,688</u>	<u>(2,376)</u>	<u>(468)</u>	<u>(1,908)</u>
Benefits and Refunds	1,632	202	1,430	185	1,245
Administrative Expenses	<u>24</u>	<u>4</u>	<u>20</u>	<u>(1)</u>	<u>21</u>
Total Deductions	<u>1,656</u>	<u>206</u>	<u>1,450</u>	<u>184</u>	<u>1,266</u>
Increase/(Decrease) in Net Assets	<u>\$3,656</u>	<u>\$7,482</u>	<u>(\$3,826)</u>	<u>(\$652)</u>	<u>(\$3,174)</u>

(Numbers may not add due to rounding)

Financial Statements

**COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM**
(a component unit of the Commonwealth of Pennsylvania)

Statements of Plan Net Assets

December 31, 2003 and 2002

(Amounts in thousands)

	2003	2002
Assets:		
Receivables:		
Plan members	\$ 1,256	\$ 1,691
Employers	2,411	810
Investment income	65,238	78,316
Investment proceeds	80,379	371,654
Miscellaneous	15,348	2,916
Total receivables	164,632	455,387
Investments:		
Short-term investment funds	778,027	738,513
United States government securities	1,855,903	2,466,865
Corporate and foreign bonds and notes	2,798,772	2,164,260
Common and preferred stocks	11,373,446	7,242,291
Collective trust funds	3,123,620	3,860,397
Real estate	2,235,786	2,422,563
Alternative investments	2,642,342	2,463,623
Total investments	24,807,896	21,358,512
Securities lending collateral pool	1,567,791	1,235,378
Total assets	26,540,319	23,049,277
Liabilities:		
Accounts payable and accrued expenses	48,122	39,974
Investment purchases	388,457	894,366
Obligations under securities lending	1,567,791	1,235,378
Total liabilities	2,004,370	2,169,718
Net assets held in trust for pension benefits	\$24,535,949	\$20,879,559
(A Schedule of Funding Progress is presented on page 22.)		

See accompanying notes to financial statements.

COMMONWEALTH OF PENNSYLVANIA
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(a component unit of the Commonwealth of Pennsylvania)
Statements of Changes in Plan Net Assets
December 31, 2003 and 2002
(Amounts in thousands)

	2003	2002
Additions:		
Contributions		
Plan members	\$ 308,014	\$ 304,233
Employers	<u>68,669</u>	<u>50,831</u>
Total contributions	<u>376,683</u>	<u>355,064</u>
Investment loss:		
Net depreciation (depreciation) in fair value of investments	3,397,954	(1,915,634)
Collective trust fund appreciation (depreciation) and income	1,165,463	(1,310,044)
Interest	237,786	303,421
Dividends	113,634	112,015
Real estate	168,427	193,719
Miscellaneous	<u>32,265</u>	<u>30,035</u>
	5,115,529	(2,586,488)
Investment expenses	<u>(187,139)</u>	<u>(153,211)</u>
Net gain (loss) from investing activities	<u>4,928,390</u>	<u>(2,739,699)</u>
From securities lending activities:		
Securities lending income	16,163	26,696
Securities lending expenses	<u>(8,854)</u>	<u>(18,292)</u>
Net income from securities lending activities	<u>7,309</u>	<u>8,404</u>
Total net investment gain (loss)	<u>4,935,699</u>	<u>(2,731,295)</u>
Total additions (deductions)	<u>5,312,382</u>	<u>(2,376,231)</u>
Deductions:		
Benefits	1,627,231	1,426,257
Refunds of contributions	5,115	4,160
Administrative expenses	<u>23,646</u>	<u>19,856</u>
Total deductions	<u>1,655,992</u>	<u>1,450,273</u>
Net decrease	3,656,390	(3,826,504)
Net assets held in trust for pension benefits:		
Balance, beginning of year	<u>20,879,559</u>	<u>24,706,063</u>
Balance, end of year	<u><u>\$24,535,949</u></u>	<u><u>\$ 20,879,559</u></u>

See accompanying notes to financial statements.

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)

Notes to Financial Statements

December 31, 2003 and 2002

(Dollar amounts in thousands)

(1) Organization and Description of the System

(a) Organization

The Commonwealth of Pennsylvania State Employees' Retirement System ("the System") was established as of June 27, 1923, under the provisions of Public Law 858, No. 331. The System was developed as an independent administrative board of the Commonwealth and is directed by a governing board that exercises control and management of the System, including the investment of its assets. The System's board has eleven members including the State Treasurer (ex-officio), two Senators or former Senators, two members or former members of the House of Representatives, and six members appointed by the Governor, one of whom is an annuitant of the System. At least five board members are active members of the System and at least two have ten or more years of credited service. The Treasurer of the Commonwealth of Pennsylvania is the custodian of the System's funds.

The System is the administrator of a cost-sharing multiple-employer defined benefit retirement system established by the Commonwealth of Pennsylvania ("Commonwealth") to provide pension benefits for employees of state government and certain independent agencies. The System is a component unit of the Commonwealth of Pennsylvania and is included in the Commonwealth's financial report as a pension trust fund. Administration costs are financed through contributions and investment earnings.

Membership in the System is mandatory for most state employees. Members and employees of the General Assembly, certain elected or appointed officials in the executive branch, department heads, and certain employees in the field of education are not required, but are given the option to participate. At December 31, 2003 and 2002, System membership consisted of:

	<u>2003</u>	<u>2002</u>
Retirees and beneficiaries currently receiving benefits	94,412	91,228
Terminated employees entitled to benefits but not yet receiving them	5,741	5,216
Current active employees	<u>109,018</u>	<u>111,059</u>
Total members	<u>209,171</u>	<u>207,503</u>
Number of participating agencies	<u>106</u>	<u>105</u>

(b) Pension Benefits

The System provides retirement, death, and disability benefits. COLAs are provided at the discretion of the General Assembly. Article II of the Commonwealth of Pennsylvania's Constitution assigns the authority to establish and amend the benefit provision of the plan to the General Assembly.

Employees who retire at age 60 with 3 years of service, or with 35 years of service if under age 60, are entitled to a normal annual retirement benefit. Members of the General Assembly and certain employees classified in hazardous duty positions can retire with full benefits at age 50, with at least 3 years of service.

COMMONWEALTH OF PENNSYLVANIA
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(Dollar amounts in thousands)

Most members of the System, and all state employees hired after June 30, 2001 (except State Police officers and certain members of the judiciary and legislators), are Class AA members. The multiplier for Class AA is 1.25, which translates into an annual benefit of 2.5% of the member's highest three-year average salary times years of service and became effective for members July 1, 2001. The general annual benefit for Class A members is 2% of the member's highest three-year average salary times years of service. State police are entitled to a benefit equal to a percentage of their highest annual salary, excluding their year of retirement. The benefit is 75% of salary for 25 or more years of service and 50% of salary for 20–24 years of service. Judges are entitled to a benefit of 4% of final average salary for each of the first 10 years of service and 3% for subsequent years. District Justices are entitled to a benefit of 3% of final average salary for each year of service. Act 9 also created a new class of service for current legislators, Class D–4. The multiplier for Class D–4 is 1.5, which translates into an annual benefit of 3% of the final average salary for each year of service. Most members vest with 5 years of credited service.

According to the Retirement Code, all obligations of the System will be assumed by the Commonwealth should the System terminate.

(c) Contributions

The System's funding policy, as set by the System's Board, provides for periodic active member contributions at statutory rates. The System's funding policy also provides for periodic employer contributions at actuarially-determined rates, expressed as a percentage of annual covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate assets to pay benefits when due. A variation of the entry-age normal actuarial cost method is used to determine the liabilities and costs related to all of the System's benefits, including superannuation, withdrawal, death, and disability benefits, and to determine employer contribution rates. The significant difference between the method used for the System and the typical entry-age normal actuarial cost method is that the normal cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. The System believes that this variation should produce approximately the same results as the typical method over the long run. These rates are computed based upon actuarial valuations on the System's fiscal year end of December 31 and applied to the Commonwealth based on its fiscal year end June 30; therefore, the employer contribution rates, in effect for the System's year-end of December 31, reflect a blended average of calculated rates. The blended contribution rates were as follows:

	<u>2003</u>	<u>2002</u>
Employer normal cost	8.54%	8.68%
Amortization of unfunded actuarial assets in excess of liabilities	(11.90)	(11.70)
Amortization of supplemental annuities	<u>3.89</u>	<u>3.02</u>
Total employer cost	<u>0.53%</u>	<u>0.00%</u>

In addition to the employer normal cost, the total employer cost includes other costs and credits resulting from COLAs, differences between actual investment results and actuarial estimated returns, and changes in benefits. These additional costs and credits are amortized over a period of future years as set by the Legislature. On December 10, 2003, Act 2003–40 ("Act 40") revised the amortization periods of these additional costs and credits to the following amortization periods:

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Pre-Act 2001-9 funding credit	10 Years
Act 2001-9 Liability	30 Years
Post 2000 gains and losses	30 Years
Existing and future COLAs	10 Years

Additionally, Act 40 revised minimum contributions to 2%, 3% and 4% effective July 1, 2004, 2005 and 2006, respectively.

The general membership contribution rate for all Class A and Class AA members is 5% and 6.25% of salary respectively. The contribution rate for Class D-4 members is 7.5%. Judges and district justices have the option of electing special membership classes requiring a contribution of 10% and 7.5%, respectively. All employee contributions are recorded in an individually identified account that is credited with interest, calculated at 4% per annum, as mandated by statute. Accumulated employee contributions and credited interest vest immediately and are returned to the employee upon termination of service if the employee is not eligible for other benefits.

(d) Benefits Completion Plan (BCP)

Act 2002-234 amended the State Employees' Retirement Code by adding Section 5941 to the Code. Section 5941 directs the State Employees' Retirement Board to establish and serve as trustee of a retirement benefit plan that is in conformity with Internal Revenue Code ("IRC") Section 415(m), the Benefits Completion Plan. The BCP is a separate trust fund established to provide benefits to all annuitants of the SERS Defined Benefit Plan and their survivor annuitants and beneficiaries whose retirement benefit exceeds the IRC Section 415(b) limits.

The BCP is funded on an annual basis. A monthly annuity or death benefit is paid under the BCP only if a corresponding monthly annuity or death benefit is paid from the Defined Benefit Plan to the extent permitted by IRC Section 415(b) and the Retirement Code. At December 31, 2003, there were 8 members in the BCP.

(2) Summary of Significant Accounting Policies

(a) Basis of Accounting

The financial statements of the System are prepared on the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of their trade date. Member and employer contributions are recognized in the period in which employees' salaries are reported. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

The System follows GASB guidance as applicable to proprietary funds and applies only those applicable Financial Accounting Standards Board ("FASB") Statements and Interpretations, Accounting Principles Board Opinions, and Accounting Research Bulletins issued on or before November 30, 1989, that do not conflict with or contradict GASB pronouncements.

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(b) Use of Estimates

Management of the System has made certain estimates and assumptions relating to the reporting of assets and liabilities, and the disclosure of contingent assets and liabilities, to prepare these financial statements in conformity with accounting principles generally accepted in the United States of America. Actual results could differ from those estimates.

Investments in venture capital, alternative investments, and real estate are generally illiquid. Because of the inherent uncertainty in valuing privately held securities, the fair value may differ from the values that would have been used had a ready market for such securities existed, and the difference can be material. Accordingly, the realized value received upon the sale of the asset may differ from the fair value.

(c) Investments

The System's investments are reported at fair value. Fair value is the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller—that is, other than in a forced or liquidation sale. The investments in short-term investment funds, including those managed by the Treasurer of the Commonwealth of Pennsylvania, are reported at cost plus allocated interest, which approximates fair value. The security lending collateral pool, which is a fund operated by the securities lending agent, also is accounted for at cost plus accrued interest, which approximates fair value. U.S. government obligations, corporate and foreign bonds and notes, and common and preferred stocks, are generally valued based on published market prices and quotations from national security exchanges and securities pricing services. Securities that are not traded on a national security exchange are valued by the asset manager or third parties based on similar sales. The System has entered into certain swap contracts with a notional amount equivalent to the System's original investment in the absolute return fund-of-funds limited partnerships to provide S&P 500 returns. The combination of the swaps and the underlying investments are designed to provide a return consistent with an actively managed equity portfolio. Accordingly, those investments have been classified as common stocks on the statement of net assets. Real estate is primarily valued based on appraisals performed by independent appraisers or, for properties not appraised, at the present value of the projected future net income stream. Alternative investments, which include interests in limited partnerships invested in venture capital, leveraged buyouts, private equities, and other investments are valued based on amounts established by valuation committees, which are subject to an annual independent audit. The values for real estate and alternative investments are reported on a one-quarter lag (September 30), adjusted for cash flows through December 31. Foreign exchange and futures contracts are marked-to-market daily with changes in fair value recognized as part of investments and investment income. The fair values of swaps are determined no less than monthly based on the return of the underlying indices, which is generally exchanged for a short-term rate plus a spread.

The Collective Trust Funds ("CTF") consist primarily of domestic and international institutional mutual and index funds. The funds do not pay interest or dividends to shareholders, and reinvest all income earned on securities held by the fund. The fair value of CTF is based on the reported share value of the respective fund.

Unsettled investment sales are reported as investment proceeds receivable and unsettled investment purchases are reported as investment purchases payable. Investment expenses consist of investment managers' fees and those administrative expenses directly related to the System's investment operations.

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(Dollar amounts in thousands)

(d) Commitments

As of December 31, 2003 and 2002, the System had contractual commitments totaling approximately \$2.5 billion and \$2.7 billion, respectively, to fund future alternative investments and \$181 million and \$195 million to fund future real estate investments.

(e) Compensated Absences

The System accrues a liability for vacation leave as the benefits are earned by the employees to the extent the System will compensate the employee for the benefits through paid time off or some other means, such as cash payments at termination or retirement. Vacation leave vests 100% at the time it is earned. The policy permits employees to carry 45 days over to the next year at December 31. The System also accrues a liability for sick leave as the benefits are earned by the employees to the extent the System will compensate the employee for the benefits through cash payments at termination or retirement. Retiring employees of the System that meet service, age, or disability requirements are paid between 30% and 100% of sick days available at retirement, up to 163 maximum days. As of December 31, 2003 and 2002, \$2.7 million and \$2.5 million, respectively, were accrued for unused vacation and sick leave for the System's employees.

(f) Federal Income Taxes

Management believes the System meets the definition of a Governmental Plan. In the System's communications with the Internal Revenue Service ("IRS"), it has been treated as a qualified plan, and is therefore considered exempt from federal income taxes. Therefore, the System has not requested a determination letter from the IRS relating to the status of the System under the Internal Revenue Code.

(g) Risk Management

The System is exposed to various liabilities and risks of loss related to theft or destruction of assets, injuries to employees, and court challenges to fiduciary decisions. As an administrative agency of the Commonwealth, the System is accorded sovereign immunity. The System participates in certain Commonwealth pooled insurance programs and requires asset managers to carry certain insurance coverage. Purchased insurance for director and officer liability was effective until January 14, 2004. Since that time the System has elected self insurance for fiduciary and director and officer liability. During the past three fiscal years, insurance settlements did not exceed insurance coverage.

(h) Reclassification

Certain 2002 balances have been reclassified to conform with the 2003 presentation.

(3) Description of Funds

The Retirement Code requires the System to maintain the following funds representing the net assets held for future and current benefit payments:

The *Member Savings Account* accumulates contributions and interest earnings of active employees. Member balances are transferred to the Annuity Reserve Accounts as members retire.

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The *State Accumulation Account* accumulates contributions of the employer and the net earnings of the fund. Funds are transferred to the Annuity Reserve Accounts as members retire. The amount transferred is determined actuarially.

The *Supplemental Annuity Account* accumulates contributions for supplemental annuities. The negative balances represent the liability for past cost of living adjustments that are being amortized to actuarial required contributions. The balance in this account is actuarially determined.

The *Annuity Reserve Accounts* are the accounts from which all death and retirement benefits and supplemental annuities are paid. The balance in this account is actuarially determined.

The *Interest Reserve Account* accumulates all income earned by the fund and from which all administrative and investment expenses incurred by the fund and the Board necessary for operation of the System are paid. Any balance in this reserve is transferred to the State Accumulation Account at year-end.

The *Benefit Completion Plan ("BCP") Reserve Account* accumulates all BCP employer contributions, net earnings of the Fund less any benefits paid out of the Fund.

Fund balances at December 31, 2003 and 2002 are as follows:

	<u>2003</u>	<u>2002</u>
Members Savings Account	\$ 3,588,664	\$ 3,498,672
State Accumulation Account	11,460,022	8,793,732
Supplemental Annuity Account	(1,617,929)	(1,066,565)
Annuity Reserve Accounts:		
Annuitants and Beneficiaries	9,935,594	8,510,412
State Police	1,132,394	1,114,014
Enforcement Officers	36,481	29,294
Benefit Completion Plan Reserve Account	<u>723</u>	<u>—</u>
Total	<u>\$24,535,949</u>	<u>\$20,879,559</u>

(4) Investments

As provided by statute, the System's Board has exclusive control and management responsibility of System funds and full power to invest the funds. In exercising its fiduciary responsibility to System membership, the Board is governed by the "prudent person" rule, which requires the exercise of due care in establishing investment policy, and has adopted its Statement of Investment Policy to formally document investment objectives and responsibilities. This policy, as well as applicable state law, establishes guidelines for permissible investments of the System, including all investment types held in the portfolio at December 31, 2003 and 2002, and at all times during those years.

The System's investments are categorized below to give an indication of the level of custodial credit (counterparty) risk assumed by the System at December 31, 2003 and 2002. In accordance with a contractual relationship between the Commonwealth's Treasury Department and its custodial agent, substantially all investments held by the custodian which are subject to categorization are held in book-entry form. Therefore, all such investments are in Category 1, which is defined as insured or registered investments for which the securities are held by the System or its agent in the System's name.

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(Dollar amounts in thousands)

Investments also may be categorized as Category 2, which is defined as uninsured or unregistered investments for which the securities are held by the counterparty's trust department or agent in the System's name, and Category 3, which is defined as uninsured or unregistered investments for which the securities are held by the broker or dealer or by its agent, but not in the System's name.

Additionally, the System has investments that are not in any of the three defined categories because securities are not used as evidence of the investment. Such investments are separately identified.

	<u>2003</u>	<u>2002</u>
Investments – Category 1:		
United States government securities	\$ 1,314,079	\$ 1,792,059
Corporate and foreign bonds and notes	2,319,096	1,762,348
Common and preferred stocks	6,205,030	4,412,127
Real estate investment trusts	<u>442,638</u>	<u>347,315</u>
Total Category 1 investments	<u>10,280,843</u>	<u>8,313,849</u>
Investments – not categorized:		
Investments held by broker/dealers under securities		
lending agreement:		
United States government securities	\$ 541,824	\$ 674,806
Corporate and foreign bonds and notes	407,386	314,173
Common and preferred stocks	572,199	321,354
Short-term investment funds	778,027	738,354
Collective trust funds	3,123,620	3,860,397
Mortgage loans	72,289	87,739
Limited partnerships*	<u>9,031,708</u>	<u>7,047,681</u>
Total not-categorized investments	<u>14,527,053</u>	<u>13,044,681</u>
Total investments	<u>\$24,807,896</u>	<u>\$21,358,512</u>

*Not categorized investments in limited partnerships include real estate, alternative investments, and absolute return fund-of-funds.

The System's real estate holdings that are located in the Commonwealth of Pennsylvania total approximately \$371 million and \$471 million or 16.6% and 19.4% of the real estate portfolio at December 31, 2003 and 2002, respectively. Concentrations of investments in a particular geographic area have certain risks and uncertainties associated with the concentration. The System's remaining real estate investments are not concentrated in any one geographic area or industry.

The System's investments in corporate and foreign bonds and notes include approximately \$1,068 million and \$767 million of high-yield bonds at December 31, 2003 and 2002, respectively.

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(5) Securities Lending

In accordance with a contract between the Commonwealth's Treasurer and its custodian, the System participates in a securities lending program. State statutes neither specifically authorize nor prohibit the lending of the System's securities.

The custodian, acting as lending agent, lends the System's equity, debt, and money market securities for cash, securities, or letter-of-credit collateral. Collateral is required at 102% of the fair value of the securities loaned except for the equity securities of non-U.S. corporations, for which collateral of 105% is required. Collateral is marked-to-market daily. If the collateral falls below guidelines for the fair value of the securities loaned, additional collateral is obtained. Cash collateral is invested by the lending agent in accordance with investment guidelines approved by the Board. The lending agent cannot pledge or sell securities collateral unless the borrower defaults.

As of December 31, 2003 and 2002, the System's credit exposure to individual borrowers was limited because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. The Treasurer's contract with the lending agent requires the agent to indemnify the System if the borrowers fail to return the underlying securities and the collateral is inadequate to replace the loaned securities or if the borrowers fail to pay income distributions on the loaned securities.

All securities loans at December 31, 2003 and 2002 could be terminated on demand by either the lending agent or the borrower. Cash collateral is invested, together with the cash collateral on securities loans of other Commonwealth entities, in a short-term collective investment pool. The duration of the investments in the pool at December 31, 2003 and 2002 was 35 days and 19 days, respectively. The relationship between the average maturities of the investment pool and the System's loans is affected by the maturities of the loans made by other entities in the investment pool. In addition, the interest rate risk posed by mismatched maturities is affected by other program features, such as the lending agent's ability to reallocate securities loans among all of its lending customers.

As of December 31, 2003 and 2002, respectively, the fair value of loaned securities was \$1.666 billion and \$1.310 billion; the fair value of the associated collateral was \$1.717 billion and \$1.343 billion of which \$1.568 billion and \$1.235 billion was cash.

Securities lent at year end are presented as unclassified in the preceding schedule of custodial credit risk. The securities lending collateral pool is not categorized because securities are not used as evidence of the investment.

(6) Derivative and Structured Financial Instruments and Restricted Assets

The System enters into certain derivative and structured financial instruments primarily to enhance the performance and reduce the volatility of its portfolio. It enters into foreign exchange contracts to hedge foreign currency exposure, futures contracts to gain or hedge exposure to certain equity markets and to manage interest rate risk, and swaps to gain equity exposure on its absolute return fund-of-funds investments, as well as hedge against the effects of inflation.

Foreign exchange contracts are agreements to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. The System uses these contracts primarily to hedge the currency exposure of its investments. To reduce the risk of counterparty nonperformance, the System generally enters into these contracts with institutions regarded as meeting high standards of credit worthiness. The unrealized gain/loss on

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contracts is included in the System's net assets and represents the fair value of the contract on December 31. At December 31, 2003 and 2002, the System's contracts to purchase and sell foreign currencies were as follows:

	2003		2002	
	Notional amount	Unrealized gain (loss)	Notional amount	Unrealized gain (loss)
Purchase contracts	\$4,450,498	\$(341,342)	\$2,973,644	\$(180,702)
Sell contracts	4,296,531	300,497	2,489,615	129,211

Futures contracts are standardized, exchange-traded contracts to purchase or sell a specific financial instrument at a predetermined price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Because of daily settlement, the futures contracts have no fair value.

The System has entered into certain futures contracts maturing through March 2004. The notional value of these contracts at December 31, 2003 and 2002 is as follows:

	2003		2002	
	Buy contracts	Sell contracts	Buy contracts	Sell contracts
Eurodollar futures	\$ —	\$ 9,631	\$ 27,378	\$ 47,960
Euro bond futures	59,491	24,399	49,443	41,345
Japan bond futures	42,462	—	51,475	—
Treasury futures	119,114	119,683	20,401	339,804
S&P futures	272,652	—	319,175	17

The exchange on which futures contracts are traded assumes the counterparty risk and generally requires margin payments to minimize such risk. The System pledges investment securities to provide the initial margin requirements on the futures contracts it buys. In addition to that collateral, the System also pledges securities on sales of securities that it does not presently own (short sales). The System enters into those short sales to neutralize the market risk of certain equity positions.

Swap agreements provide for periodic payments between parties based on the net difference in the cash flows of underlying assets, indexes, or rates. During 2003 and 2002, the System entered into swap arrangements to purchase commodity futures. Under the arrangement, the System receives the net return of the Goldman Sachs Commodity Index from the swap counterparty in return for the 90-day Treasury Bill rate plus a spread, which it pays to the counterparty. The commodity swaps are used as an inflation hedge and settle on a monthly basis. In addition, the System also uses swap arrangements to gain equity exposure on its absolute return fund-of-funds investments. Under those arrangements, the System receives the net return of the S&P 500 Total Return Index in exchange for a short-term rate plus a spread. The System uses multiple contracts with counterparties to diversify its credit risk. The contracts have varying maturity dates ranging from March 19, 2004 through March 23, 2005.

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The table below presents the System's swap exposure at December 31:

	Notional value		Receivable/(Payable)	
	2003	2002	2003	2002
Goldman Sachs				
Commodity Index	\$ 479,324	\$ 324,503	\$ 29,841	\$ 25,000
Interest rate	—	32,600	—	(729)
S&P 500 Total				
Return Index	\$4,315,510	2,378,538	264,408	(191,169)

The System requires collateral on these swaps based on the counterparty's credit rating in order to reduce the risk of counterparty nonperformance.

The System mitigates its legal risk on investment holdings, including the previously discussed instruments, by carefully selecting portfolio managers and extensively reviewing their documentation. It manages its exposure to market risk within risk limits set by management.

The System also indirectly holds foreign exchange contracts, futures contracts, and certain swap contracts through its investments in collective trust funds. Those collective trust funds directly and indirectly (through a securities lending collateral pool) invest in those instruments to hedge foreign exchange exposure, to synthetically create equity returns, and to manage interest rate risk by altering the average life of the portfolio.

(7) Commission Recapture Program

The System has commission recapture contracts with several brokers. These contracts generally stipulate that the brokers rebate a percentage of commissions earned on investments directly to the System. During the years ended December 31, 2003 and 2002, the System earned \$870 and \$711 of benefits resulting from a commission recapture program, respectively. The System used the program to pay approximately \$1,072 and \$898 of consulting, advisory, and other expenditures for the years ended December 31, 2003 and 2002, respectively. At December 31, 2003 and 2002, the System has accumulated \$1,877 and \$2,079, respectively, of benefits that are available for future expenditures.

(8) Pension Plan for Employees of the System

The System also makes employer contributions. The System's employees' contribution requirements and benefits are described in note 1 to these financial statements. The System's contributions for the years ended December 31, 2003, 2002 and 2001 were \$25, \$0, and \$27, respectively, which were equal to the required contributions each year.

(9) Litigation and Contingencies

The System is involved in various individual lawsuits, generally related to benefit payments, which, if settled adversely, could increase estimated actuarial liabilities by approximately \$1 billion. The individual cases involve legal issues that, if extended to the entire membership, may result in significant costs to the System. If such an event were to occur, the additional costs would be recovered by the System through adjustments to the employer contribution rate.

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(10) COLA

On April 23, 2002, the Governor of Pennsylvania signed Act 2002-38 ("Act 38") into law. HB 27 provided for, among other things, a two phase COLA for retired members. The bill excluded those members in Class AA, T-D and D-4. For annuitants retiring before July 2, 1990 the bill provided the following COLA:

	<u>Percent increase</u>
Phase One, effective July 1, 2002:	
<i>Date of retirement</i>	
Before July 2, 1980	25.00%
Between July 2, 1980 through July 1, 1983	15.00%
Between July 2, 1983 through July 1, 1988	10.00%
Between July 2, 1988 through July 1, 1990	8.00%
Average expected increase	13.86%
Phase Two, effective July 2, 2003:	
<i>Date of retirement</i>	
Between July 2, 1990 through July 1, 1994	9.00%
Between July 2, 1994 through July 1, 1998	7.50%
Between July 2, 1998 through July 1, 1999	6.35%
Between July 2, 1999 through July 1, 2000	4.87%
Between July 2, 2000 through July 1, 2001	3.08%
Between July 2, 2001 through July 1, 2002	2.27%
Average expected increase	6.99%

The increased actuarial liabilities for the COLA were approximately \$257 million for Phase One and \$396 million for Phase Two. Funding for Phase One commenced on July 1, 2003 and funding for Phase Two will begin on July 1, 2004. The effect on the employer contribution rate is expected to be 0.79% and 1.21% for Phase One and Phase Two, respectively. The cost of the COLA will be amortized under a 10-year level amortization schedule.

Required Supplementary Information

COMMONWEALTH OF PENNSYLVANIA
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Required Supplemental Schedule 1 – Schedule of Funding Progress
(Unaudited)
(dollar amounts in millions)

Actuarial valuation year	Actuarial value of assets	Actuarial accrued liabilities (AAL)	Unfunded actuarial accrued liabilities (UAAL)	Ratio of assets to AAL	Covered payroll	UAAL as a percentage of covered payroll
2003	\$27,466	\$26,180	\$ (1,286)	104.9 %	\$ 4,965	(25.9) %
2002	27,498	25,650	(1,848)	107.2	5,093	(36.3)
2001	27,505	23,659	(3,846)	116.3	4,872	(78.9)
2000	26,094	19,702	(6,392)	132.4	4,769	(134.0)
1999	23,624	19,092	(4,532)	123.7	4,519	(100.3)
1998	20,671	18,358	(2,313)	112.6	4,446	(52.0)

Required Supplemental Schedule 2 – Schedule of Employer Contributions
(Unaudited)
(dollar amounts in thousands)

Year ended December 31,	Annual required contributions	Percentage contributed
2003	\$ 55,079	123.4 %
2002	22,906	221.9
2001	52,104	147.2
2000	168,002	100.0
1999	269,869	100.3
1998	310,501	100.0

During the years 2003, 2002, and 2001, actual contributions exceeded the annual required contributions (“ARC”). For the period July 1, 2001 through June 30, 2003 the ARC was set at zero. However, the System required payment from certain agencies that provided age 50 retirement and from special classes for payment of past liabilities for retroactive benefit enhancements. Collection of those amounts resulted in the actual contributions exceeding the ARC.

See accompanying notes to required supplemental schedules of funding progress and employer contributions.

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Notes to Required Supplemental Schedules of Funding Progress and Employer Contributions
December 31, 2003 and 2002

Actuarial information as of the latest actuarial valuation:

Valuation date	December 31, 2003
Actuarial cost method (b)	Variation of entry-age normal actuarial cost method
Amortization method (a)	10 year and 30 year schedules with level payments
Remaining amortization period (a)	8–30 years, closed
Asset valuation method	5–year smoothed market
Actuarial assumptions:	
Investments rates of return (c)	8.5%
Projected salary increases (c)	5.16% – 8.98%, average of 6.8%
Cost-of-living adjustments (d)	As described below

GASB 25 establishes a range of actuarial cost and amortization methods for the Unfunded Actuarial Accrued Liability. The methods used by the System are within the range specified under GASB 25.

- (a) The December 31, 2001 valuation included the effect of Act 9, which increased the actuarial accrued liabilities by approximately \$2.7 billion. Act 2003–40 revised the amortization method and remaining amortization periods as discussed in footnote 1(c) to the audited financial statements.
- (b) A variation of the entry-age normal actuarial cost method is used to determine the liabilities and costs related to all of the System's benefits including superannuation, withdrawal, death and disability benefits. The significant difference between the method used for the System and the typical entry-age normal actuarial cost method is that the normal cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. This variation should produce approximately the same results as the typical method over the long run.
- (c) Includes inflation at 3%.

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Notes to Required Supplemental Schedules of Funding Progress and Employer Contributions
December 31, 2003 and 2002

- (d) Information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. The effects of cost of living adjustments to annuitants were included in the respective valuations as presented in the table below:

Valuation year	Effective retirement date	COLA range (based on date of retirement)	Effective date of COLA	Increase to actuarial accrued liabilities
2002	Between July 2, 1990 and July 1, 2002	2.27% – 9.0%	July 1, 2003	\$396 million
2002	On or before July 1, 1990	8.0% – 25.0%	July 1, 2002	\$257 million
1997	On or before June 30, 1997	1.86% – 25.0%	July 1, 1998	\$478 million

Additional Financial Information

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
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Supplemental Schedule 1 – Schedule of Administrative Expenses
Year ended December 31, 2003
(Dollar amounts in thousands)

Personnel services:		
Salaries	\$10,103	
Benefits	3,133	
Temporary personnel wages, overtime, and outservice training	<u>219</u>	
Total personnel services		\$13,455
Professional services:		
Consultant fees	2,296	
Treasury Department services	816	
Consultant contractual services vendor provided	770	
Commonwealth Central services	638	
Consultant services EDP	593	
Legal fees	<u>69</u>	
Total professional services		5,182
Rentals:		
Real estate rent	1,730	
Other equipment rental	<u>694</u>	
Total rentals		2,424
Communication:		
Postage	453	
Telephone	225	
Printing and advertising	<u>64</u>	
Total communication		742
Other expenses:		
Supplies	609	
EDP and office equipment	386	
Maintenance	322	
EDP Software	292	
Travel and conferences	167	
Subscriptions and memberships	<u>67</u>	
Total other expenses		<u>1,843</u>
Total administrative expenses		<u><u>\$23,646</u></u>

COMMONWEALTH OF PENNSYLVANIA
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Supplemental Schedule 2 – Schedule of Investment Expenses and Consulting Fees
Year ended December 31, 2003
(Dollar amounts in thousands)

	Fees
Investment manager fees:	
Alternative investments	\$ 82,302
Stocks	70,882
Real estate	17,925
Fixed income	12,494
Commodities	<u>719</u>
Total investment manager fees	184,322
Investment Related Expenses:	
Alternative investments	1,436
Real estate	631
Legal	524
Custodial	216
Fixed income	<u>10</u>
Total other fees	<u>2,817</u>
Total investment expenses	<u><u>\$ 187,139</u></u>

Consulting Fees

Firm	Category	Fees
Cambridge Associates, LLC	Private Equity	\$ 937
Hay Group, Inc.	Actuary	522
Rocaton Investment Advisors, LLC	General Consultant	368
The Townsend Group	Real Estate	209
Institutional Shareholder Services	Proxy Services	100
Pension Consulting Alliance	Special Projects	78
Other		<u>82</u>
Total consulting fees		<u><u>\$2,296</u></u>

INVESTMENT



Report on Investment Activity

Peter M. Gilbert
Chief Investment Officer

June 2004

Dear Members:

The year 2003 represented a return to the “best of times,” particularly following the “worst of times” protracted bear market years of 2000–2002. After a slow start, the economy began to improve, interest rates remained low and the dollar continued to weaken thereby contributing to the improvement in corporate profits. The improving economy and corporate profits had a positive effect on investor psychology, driving financial markets upward briskly.

During the bull market of the 1990’s, we cautioned not to expect the double-digit returns to continue indefinitely. Unfortunately, the warning was realized all too brutally during the bear market of 2000 to 2002. The wonderful bull market we experienced in the 1990’s was replaced by the second worst bear market in history with the S&P 500 Index declining 49% from peak to trough. This bear market nearly matched the duration of the worst bear market during the “Great Depression” at 30 months. However, as is typical following prior market collapses, the financial markets rebounded strongly in 2003. As a result, the Fund produced a return of 24.3% for 2003. This return was the second best annual return in the past 20 years—second only to the 25.2% return in 1995. Although significant declines in the financial markets between 2000 and 2002 have taken a toll on Fund performance, SERS’ annualized return of 9.4% after fees over the past ten years handily exceeds the Fund’s actuarial assumed rate of return of 8.5%. In spite of declines over the most recent years, on an actuarial basis, the Fund continues to enjoy a fully funded status to meet ever-increasing benefit obligations.

Most importantly, these returns have been earned in accordance with the investment policy and objectives set out by the Board operating as fiduciaries in the sole interest of the beneficiaries and members of the Fund. The primary investment objective is to assure the adequate accumulation of reserves in the Fund at the least cost to the citizens of the Commonwealth while preserving the principal of the Fund against erosion from inflation. The objectives further state that the Board seeks to meet these objectives within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, investment manager style and geographic location. As a long-term investor, this concept of diversification is key, as it allows the Fund to achieve its return objectives while at the same time, mitigating various investment risks.

SERS’ Investment Office, in conjunction with the Fund’s consultants, performs a review of the asset allocation annually, recommending modifications to asset classes and future allocations as appropriate. The results are reviewed by the Board, which establishes the Fund’s asset allocation policy. Enabled by the passage of the Prudent Person legislation in 1994, the Fund has successfully broadened the range of asset classes and investment strategies in which SERS is able to invest.

SERS’ Investment Summary contained on the following pages reveals the diversification of the asset classes and investment manager styles. SERS’ portfolio has also been constructed to ensure overall diversification by industry sector and geographic location. This diversification has resulted in a reduction of risk within SERS’ portfolio.

SERS' Investment Office continuously monitors economic and market events and works to position the Fund through broad diversification to be in a position to face a variety of different economic scenarios. Under the supervision and guidance of the Board, SERS' Fund's structure is sound and has the ability to endure under a variety of market environments. The Fund is well positioned to ensure that SERS' members receive the financial security that they have earned and that is due them.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark A. Goldstein". The signature is fluid and cursive, with the first name "Mark" and last name "Goldstein" clearly distinguishable.

Investment Policies

The State Employees' Retirement Board adopted a formal Statement of Investment Policy in 1979. It has been revised periodically, principally to reflect and incorporate legislative changes governing investments. The purpose of the statement is to formalize the Board's investment objectives, policies, and procedures: to establish guidelines for the investment of Fund assets, and to define the duties and responsibilities of the various entities involved in the investment process. The major elements of the statement are:

- ✓ As fiduciaries, the Board will exercise that degree of judgment, skill and care under the circumstances then prevailing which persons of prudence, discretion and intelligence, who are familiar with such matters, exercise in the management of their own affairs in investment matters;
- ✓ The Fund's overall investment objective is to provide a total rate of return, over full economic cycles, which exceeds the return of a fully diversified market portfolio within each asset class. The Board seeks to meet this objective within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, quality and geographic location;
- ✓ The Board employs an investment staff and also contracts with investment advisors and consultants to provide expert, professional judgment in all investment decisions;
- ✓ An annual Investment Plan is prepared to control the allocation of funds during the year among investment advisors and categories of assets;
- ✓ Guidelines are established for each category of assets used by the Fund's investment advisors to provide a framework for monitoring quality, diversification and liquidity; and
- ✓ Where investment characteristics, including yield, risk and liquidity, are equivalent, the Board's policy favors investments which have a positive impact on the economy of Pennsylvania.

Investment Objectives

To assure an adequate accumulation of reserves in the Fund at the least cost to the citizens of the Commonwealth and to provide some protection against the erosion of principal by inflation, the long-term investment objectives of the Fund, are:

- ✓ Achieve and maintain the State Employees' Retirement Fund in excess of Actuarial Accrued Benefit Liability;
- ✓ Over the long run, achieve a positive real total rate of return (with inflation measured by the GDP Implicit Price Deflator);
- ✓ Over the long run, achieve an absolute total rate of return not less than the actuarial investment return assumption;
- ✓ Achieve in Domestic Stocks a total return that exceeds the total return of the Russell 3000 Index;
- ✓ Achieve in International Stocks a total return that exceeds the total return of the SERS Custom International Stock Index;
- ✓ Achieve in the Fixed Income asset class a total return that exceeds the total return of the SERS Fixed Income Custom Index;
- ✓ Achieve in the Equity Real Estate asset class a total return that exceeds the total return of the Townsend Stylized Benchmark;
- ✓ Achieve in the Cash asset class a total return that exceeds the total return on U.S. Treasury Bills (90 days);
- ✓ Achieve in the Venture Capital asset class a total return that exceeds either the Venture Economics' relevant Vintage Year Median Returns or relevant returns furnished for benchmark purposes by SERS Venture Capital/Alternative Investments consultant;
- ✓ Achieve in the Alternative Investments asset class a total return that exceeds either market returns for similar types of alternative investments or relevant returns furnished for benchmark purposes by SERS Venture Capital/Alternative Investments consultant.
- ✓ Achieve in the Commodities asset class a total return consistent with the Goldman Sachs Commodities Index.

Total return includes income and both realized and unrealized gains and losses and is computed on market value. The Board seeks to meet these objectives within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, investment manager style and geographic location.

Investment Results

Schedule of Portfolio Returns* After Fees For the period ending December 31, 2003

<u>Asset Class</u>	<u>1–Year Total Return</u>	<u>3–Year Total Return</u>	<u>5–Year Total Return</u>	<u>10–Year Total Return</u>
Domestic Stocks <i>Russell 3000 Index</i> ^{1/}	34.3% 31.1%	–1.1% –3.1%	1.7% –0.4%	11.0% 10.6%
International Stocks <i>MSCI World ex US Index through 12/93; thereafter, SERS Custom International Stock Benchmark (26% Hedged)</i> ^{2/}	40.6% 41.3%	–0.2% –0.2%	5.5% 2.2%	5.6% 4.5%
Fixed Income <i>SERS Custom Fixed Income Benchmark</i>	12.7% 9.7%	8.2% 8.0%	6.3% 5.6%	7.5% 7.0%
Cash <i>90 day U.S. T–bills</i>	1.3% 1.2%	2.4% 2.4%	3.7% 3.7%	4.5% 4.4%
Real Estate ^{3/} <i>Townsend Stylized Benchmark</i>	10.8% 11.0%	7.7% 8.5%	9.6% 9.7%	9.9% 9.8%
Private Equity ^{3/} <i>Cambridge Private Equity Index</i>	11.9% 12.2%	–4.4% –6.2%	9.0% 5.1%	14.1% 13.0%
Venture Capital ^{3/} <i>Cambridge Venture Capital Index</i>	–14.8% –9.8%	–26.5% –30.2%	4.5% 16.9%	12.3% 24.2%
Commodities ^{4/} <i>Goldman Sachs Commodities Index</i>	20.7% 20.7%	N/A 2.8%	N/A 18.0%	N/A 7.9%
Total Fund	24.3%	0.7%	4.6%	9.4%
Total Fund Benchmark	22.4%	–0.3%	3.2%	8.6%

* Returns for periods longer than one year are annualized.

^{1/} The Domestic Stocks Benchmark is the Wilshire 5000 Index through 12/31/98, and the Russell 3000 thereafter.

^{2/} The International Stocks Composite and the Custom International Index were unhedged prior to 5/1/96.

^{3/} Results for the Real Estate, Private Equity, Venture Capital and Indices are lagged one quarter.

^{4/} Commodities were initially funded in November of 2001.

Note: The performance calculations were prepared using a time-weighted rate of return based on the market rate of return in accordance with AIMR's Performance Presentation Standards.

Largest Assets Held

Domestic Equity		International Equity	
Holding	Fair Value	Holding	Fair Value
General Electric	\$62,440,650	British Petroleum	\$57,072,791
NTL Inc	61,334,523	Nestle	53,779,117
Microsoft	60,727,132	Royal Dutch Petroleum	51,979,592
Exxon Mobil	59,186,867	Total SA	50,198,650
Citigroup	58,510,021	Vodafone Group	48,335,087
Pfizer	50,645,937	Novartis	48,318,602
Intel Corp	49,935,934	UBS	46,435,392
Wal-Mart Stores	47,679,377	Glaxosmithkline	41,947,459
American Int'l Group	35,292,918	Barclays PLC	40,365,212
IBM	35,085,178	ENI SPA	38,366,824

International Fixed Income

France Govt OAT, 6.5%, April 25, 2011	\$61,038,606
U K Treasury, 8.5%, December 7, 2005	48,337,899
Government of Canada, 5.5%, June 1, 2009	23,746,847
Kingdom of Sweden Bonds, 6.0%, February 9, 2005	21,322,942
Kingdom of Sweden Bonds, 5.0%, January 28, 2009	21,249,621
Telewest PLC Sr Discount, Variable, October 1, 2007	20,107,275
U K Treasury, 6.75%, December 7, 2009	19,867,837
Government of France, 8.5%, October 25, 2019	19,466,951
Government of Japan, 1.5%, March 20, 2012	18,763,715
Fed Republic of Germany Bonds, 6.5%, July 4, 2027	17,481,302

US Government

U S Treasury Notes, 5.0%, February 15, 2011	\$50,715,872
U S Treasury Notes, 2.0%, August 31, 2005	50,421,141
U S Treasury Bond Stripped Prin Pmt, 8.75%, August 15, 2020	44,543,238
U S Treasury Notes, 3.125%, September 15, 2008	34,989,500
U S Treasury Notes, 6.125%, August 15, 2007	31,124,222
U S Treasury Notes, 3.375%, November 15, 2008	30,656,321
U S Treasury Bill, April 8, 2004	29,852,938
U S Treasury Notes, 3.25%, August 15, 2008	29,065,575
U S Treasury Bonds, 12.75%, November 15, 2010	27,319,513
U S Treasury Notes, 2.0% , November 30, 2004	23,381,319

Domestic Corporate Fixed Income

Comcast Corp, Sr Sub Debt, 10.625%, July 15, 2012	\$17,795,269
Nextel Communications, Sr Debt, 7.375%, August 1, 2015	16,085,000
Wachovia Credit Card 99-1 Cl A, Variable, August 15, 2006	13,352,083
Citibank Credit Card 2000-A3, 6.875%, November 16, 2009	13,533,450
Medpartners Inc, New Sr Nt, 7.375%, October 1, 2006	13,399,875
FHLMC Pool #A1-6319, 7.5%, May 1, 2031	13,324,043
Stone Container Corp, Sr Note, 9.75%, February 1, 2011	12,928,500
Adelphia Communications Corp, Sr Note, 9.375%, November 15, 2009	11,734,250
AT&T Wireless Services Inc Sr Note, 8.75%, March 1, 2031	11,563,786
Echostar Corp Sr Notes, 9.375%, February 1, 2009	9,902,775

*A detailed list of SERS' investment holdings at December 31 may be viewed at www.sers.state.pa.us

Schedule of Broker Commissions

Year Ended December 31, 2003

<u>BROKER</u>	<u>COMMISSIONS</u>	<u>BROKER</u>	<u>COMMISSIONS</u>
Merrill Lynch	\$ 1,209,873	Deutsche Securities	\$ 100,160
First Boston Corp	919,616	Citation Group	97,432
Deutsche Bank	747,306	Execution Services	90,131
Lehman Brothers	580,867	ABG Securities	85,571
Salomon Smith Barney	431,228	Enskilda Securities	82,895
Morgan Stanley	431,178	SK International Securities	81,559
Instinet	418,528	Liquidnet	80,257
Citibank	401,604	Heflin & Company	78,935
Goldman Sachs	395,302	Donaldson, Lufkin, & Jenrette	78,381
U.B.S. Securities	328,480	Jones & Associates	75,500
Cheuvreux De Virieu	324,507	Daiwa Bank	75,408
J. P. Morgan	309,721	Credit Agricole	73,343
HSBC Securities	268,129	Fortis Securities	73,113
Jefferies & Company	261,232	Neue Zürcher Bank	69,607
Investment Technology Group	254,779	Sal Oppenheim	69,077
Warburg Dillon Read	245,924	Nutmeg Securities	68,605
B Trade Services	240,099	Wilshire Associates	62,277
Union Bank of Switzerland	233,724	Green Street Advisors	61,419
Kleinwort Benson	233,472	Sanford C Bernstein & Company	60,070
Cazenove	198,436	SG Cowen Securities	59,267
Credit Lyonnais	168,600	Societe Generale	58,422
Dain Rauscher	161,789	Petercam	57,576
Carnegie	161,264	Mogavceo Lee & Company	54,198
Paine Webber	161,015	Julius Baer Securities	54,039
First Union Capital Markets	152,150	Rochdale Securities	52,996
Williams Capital Group	147,534	Capital Institutional Investors	49,549
Nomura Bank International	145,975	Spear Leeds & Kellogg	49,164
Bank of America	145,704	Banco Santander	48,716
Cantor Fitzgerald	136,460	Janney Montgomery Scott	47,330
Weeden & Company	129,739	Fox-Pitt Kelton	46,924
Exane	117,129	Fidelity Capital Markets	46,563
Legg Mason	116,515	Saritoga Capital	45,308
ABN Amro	111,620	Seslia Securities	45,116
Oppenheimer	110,427	Prudential Securities	44,269
Hoare Govett	107,101	Kay Hian James Capel Ptd	41,170
Westminster Research Associates	101,107	J. Vontobel	41,012

Schedule of Broker Commissions
(Continued)

<u>BROKER</u>	<u>COMMISSIONS</u>	<u>BROKER</u>	<u>COMMISSIONS</u>
Pershing	\$ 40,824	Samsung Securities	\$ 19,683
Dean Witter Reynolds	40,689	Sunguard	19,637
CI Nordic Securities	39,978	Svenska Handelsbanken	19,290
First Albany	39,299	Second Street Securities	18,860
Raymond James & Assoc. Inc.	38,752	Panmure Gordon and Company	18,379
KBC Bank N V	37,737	Scott Stringfellow Inc.	18,325
A.G. Edwards & Sons Inc.	36,867	Ragen Mackenzie	18,159
Charles Schwab	36,858	Leerink Swann & Co	18,128
William Blair & Company	36,831	Westlb Panmure	17,339
McDonald & Company Securities	36,365	Rabo Securities	17,333
GGET, LLC	35,532	Bank of New York	16,952
Magna Securities	35,270	Montrose Securities	16,808
Henderson Brothers Inc.	35,220	U.S. Clearing Corp	16,670
Intermonte Sec Cim	33,724	SG Securities	16,457
Collins Stewart	31,873	Adams Harkness & Hill, Inc.	15,758
Mizuho Securities	30,546	Westlb Sec.	15,188
Friedman Billings	30,326	Lynch Jones & Ryan	15,181
BNP Capital Markets	30,169	Allen & Company	14,796
Desdner Bank	28,335	Fortis Investment	14,472
Berenborg Gossler	27,937	Den Danske Bank	14,407
Stephens	27,540	Fulcrum Global Partners	14,285
Pulse Trading	27,313	Kim Eng Sec Ltd.	14,279
Davy Stockbrokers	25,273	RBC Dominion Sec. Corp.	14,265
Banque Paribas	25,236	Multitrade Securities	14,037
Wachovia Securities	24,188	Ormes Capital Markets	13,914
Goodbody Stockbroker	24,178	Bridge Trading Company	13,581
Macquarie Bank	23,967	Blaylock Partners L P	12,615
Wexford Clearing Services	23,302	Granville & Company	12,078
Keefe Bruyette & Woods	22,790	Neuberger & Berman	12,021
Investec Bank Ltd.	22,686	ISI Group	11,899
Soundview Financial Group	22,611	Morgan Keegan	11,857
Williams De Broe	22,234	W. R. Hambrecht & Co	11,845
Euroclear Brussels	22,232	Sanders Morris Mundy	11,468
Knight Securities Broadcort	21,875	Piper Jaffray & Hopwood	11,299
Thomas & Weisel	21,844	Mayer & Schweitzer	11,234
Pictet Et Cie	21,499	Sandler O'Neil	11,147
Caib Securites	20,945	Henderson Crosthwaite & Co.	11,084
Mitsubishi Finance Int.	20,085	Quaker Securities	10,984
		Other	561,736
		Total Commissions	<u>\$15,553,411</u>

Investment Summary

The assets of the State Employees' Retirement System ("SERS") are administered by the SERS Board ("Board"). The Board has adopted an Investment Policy ("Policy") that incorporates the provisions of the Retirement Code which govern the investment of SERS' assets. The Policy provides investment objectives and guidelines. An Investment Plan is reviewed and updated annually for strategic asset allocation purposes, as well as for diversification needs within each asset class.

Market Value as of December 31, 2003: SERS' assets had an unaudited market value of approximately \$24,560.3 million on December 31, 2003.

Asset Class	SERS Asset Allocation		2003 Target Allocation	Long-Term Target Allocation
	Value Market			
	(millions)	%		
Domestic Stocks	\$ 9,442.2	38.4%	34.0%	33.0%
International Stocks	5,433.7	22.1%	18.0%	18.0%
Currency Overlay	-35.1	-0.1%	0.0%	0.0%
Fixed Income	4,131.2	16.8%	22.0%	25.0%
Cash	225.8	0.9%	0.0%	0.0%
Real Estate	2,239.6	9.1%	11.5%	8.0%
Alternative Investments	2,643.5	10.8%	12.5%	14.0%
Commodities	479.5	2.0%	2.0%	2.0%
Total	\$24,560.3	100.0%	100.0%	100.0%

Number of Investment Advisors: SERS had 153 external investment advisory firms managing portfolios. There are 48 advisors in the Public Markets domain and 122 for private equity and real estate. Twelve of these advisors managed portfolios across asset classes.

- 16 U.S. Stock advisors
- 14 International Stock advisors
- 2 Currency overlay advisors
- 14 Fixed Income advisors
- 1 Cash advisor
- 1 Commodity advisor
- 23 Real Estate advisors
- 44 Venture Capital general partners managing limited partnerships
- 55 Private Equity general partners managing limited partnerships

Number of Investment Portfolios: SERS had 295 investment portfolios/accounts. Fifty-nine of these accounts are public market investments, while 236 covered private markets.

- 21 U.S. Stock portfolios
- 19 International Stock portfolios
- 2 Currency overlay portfolios
- 15 Fixed Income portfolios
- 1 Cash portfolio
- 1 Commodity portfolio
- 42 Real Estate portfolios
- 86 Venture Capital limited partnership interests
- 108 Private Equity limited partnership interests

In addition, Board appointments include four private equity partnerships and three venture capital partnerships.

Sixty-eight investment advisors manage multiple portfolios within and across asset classes for SERS.

Numbers may not add due to rounding.

Summary of U.S. Stock Investments

US. and International Stocks comprise the Stock asset class. U.S. stocks are one of eight major asset classes, which SERS uses to diversify the investments of the Fund. SERS' investment plan diversifies stock investments while maintaining a reasonable risk posture relative to the benchmarks. SERS contracts with external investment advisors to manage portfolios.

Policy: Stock investments are employed by the Fund primarily because their expected large return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The Stock asset class is managed on a total return basis.

SERS' long term investment objective in the U.S. Stock component of the Stock asset class is to achieve a total return, net of fees, that exceeds the total return of the Russell 3000 Index.

Stock investments shall emphasize, but not be limited to, publicly traded securities, which provide SERS with an equity interest in private sector concerns (e.g., common stock, preferred stock, convertible preferred stock, convertible bonds, derivative instruments providing stock like returns, etc.).

SERS' 2003 Investment Plan targeted a long-term allocation of 33% of assets to U.S. Stocks. The U.S. stocks structure reflects the broad U.S. market in terms of capitalization (large, medium, small). SERS U.S. stock portfolio, in aggregate, will strive to reflect the risk characteristics of the Russell 3000 Index, which is a good proxy for the broad, investable U.S. market. The 2003 plan targeted 67% of U.S. Stocks to have S&P 500 exposure. At December 31, 2003, U.S Stocks had 77.7% exposure to the S&P 500 which included an S&P 500 index fund (20.4%), an enhanced index (2.9%), as well as market neutral strategies (2.9%) and equitized fund-of-funds absolute return strategies (51.5%).

Market Value as of December 31, 2003: U.S. Stocks had a \$9,442.2 million market value, 38.4% of the total fund's \$24,560.3 million market value on December 31, 2003.

Number of Investment Advisors: SERS had contracts with 16 external investment advisors to manage U.S. Stock portfolios.

Number of Investment Portfolios: SERS had 21 U.S. Stock portfolios managed by the 16 investment advisors.

Type of Investment Portfolios: As of December 31, 2003, 77.7% of SERS U.S. Stock allocation was in large capitalization stock strategies, including the equitized fund-of-funds absolute return strategies, and 22.3% was in medium/small capitalization stock strategies. SERS had 18 actively managed portfolios (79.6% of U.S. Stocks) and one indexed portfolio (20.4% of U.S. Stocks). The active managers search out superior investment opportunities, while the indexed portfolio provides broad core diversification and is designed to provide market performance at a low cost. SERS has one equitization manager for the absolute return strategies. SERS also utilizes one manager to manage the stock distributions that originate in the alternative investments portfolio.

<i>U.S. Stock</i> Investment Advisor	Investment Style	*Market Value as of 12/31/03 (\$ millions)
1. Barclays Global Investors	S&P 500 Index	\$1,924.0
	Stock-based enhanced indexing	271.0
2. AXA Rosenberg Investment Management	Russell 2500, risk controlled	425.9
3. Artemis	Small cap relative value stocks	124.3
4. Blackstone Alternative Asset Management (BAAM)	Equalized fund-of-funds absolute return	1,508.8
5. Emerald	PA stocks	146.4
6. First Quadrant	Equitized long/short U.S. market neutral	62.5
7. Iridian Asset Management	Mid cap private business value	398.9
8. Martingale Asset Management	Equitized long/short U.S. market neutral	77.1
9. Mellon Equity Associates	PA stocks	163.2
	Russell 2500, risk controlled (Special)	293.8
The Boston Company	Equitized long/short U.S. market neutral	67.4
10. Mesirow Financial	Equalized fund-of-funds absolute return	1,115.4
11. Morgan Stanley Alternative Investment Partners	Absolute return strategy equitization	264.4
	Equalized fund-of-funds absolute return	629.3
12. PAAMCO Absolute Return	Equalized fund-of-funds absolute return	1,342.8
13. Provident Investment Counsel (PIC)	Mid cap aggressive growth stocks	158.5
PIC Stellar Fund	Small cap growth stocks	190.3
14. Trinity Investment Management	Small cap low p/e stocks	169.7
15. Twin Market Neutral	Equitized long/short U.S. market neutral	66.8
16. Warburg-Pincus	Stock distribution manager	<u>41.8</u>
Total		<u><u>\$9,442.2</u></u>

**Includes stocks and cash which the manager had available for investment. Numbers may not add due to rounding.*

Summary of International Stock Investments

International and U.S. Stocks comprise the Stock asset class. International stocks are one of eight major asset classes that SERS uses to diversify the investments of the Fund. SERS' investment plan diversifies stock investments while maintaining a reasonable risk posture relative to the benchmarks. SERS contracts with external investment advisors to manage portfolios.

Policy: Stock investments are employed by the Fund primarily because their expected large return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The Stock asset class is managed on a total return basis.

SERS' long term investment objective for the international stock component of the stock asset class is to achieve a total return, net of fees, that exceeds the total return of the Citigroup World Equity Broad Market Index—Europe and Pacific, a proxy for large- and small-cap stocks in non-U.S. developed markets, and the MSCI Emerging Markets Free Index, a proxy for stocks in emerging markets.

SERS' 2003 Investment Plan targeted a long-term allocation of 18% of total Fund assets to international stocks, which include 12% of total Fund assets in non-U.S. developed markets, 3% of total Fund assets to dedicated small-cap stocks in non-U.S. markets, and 3% of total Fund assets to stocks in emerging markets.

Market Value as of December 31, 2003: International Stocks had a \$5,433.7 million market value or 22.1% of the total Fund's \$24,560.3 million market value on December 31, 2003. In addition, the fair value of forward exchange contracts in the currency overlay program amounted to -\$35.1 million.

Number of Investment Advisors: SERS had contracts with 14 external investment advisors to manage international stock portfolios. In addition, SERS had contracts with 2 external advisors to manage the currency overlay program.

Number of Investment Portfolios: SERS had 19 stock portfolios managed by the 14 investment advisors and 2 accounts for the currency overlay program.

Type of Investment Portfolios: As of December 31, 2003, SERS had 17 actively managed international portfolios and two indexed portfolios. 14.6% of total Fund assets was allocated to stocks in non-U.S. developed markets, 3.5% of total Fund assets was allocated to dedicated small-cap stocks in non-U.S. markets, and 4% was allocated to stocks in emerging markets.

<i>International Stock</i> Investment Advisor	Investment Style	*Market Value as of 12/31/03 (\$ millions)
1. Artisan Partners Limited Partnership	Growth stocks	\$ 406.8
2. Capital International, Inc. Emerging Markets Growth Fund, Inc.	Emerging markets – value and growth	150.8
3. GAM International Management Ltd GAM Institutional Group Trust	Pacific Basin ex Japan – value	134.7
4. Harris Associates L.P.	Small cap – intrinsic value	211.0
5. Marathon Asset Management Limited	Europe – relative value sectors	451.0
6. Marvin & Palmer Emerging Markets Equity, L.P.	Emerging markets – growth 77.2 momentum	
7. Merrill Lynch Investment Managers International Limited	Small cap – growth	483.4
8. J.P. Morgan Investment Management Inc.	Japan – benchmark risk control	362.9
9. Morgan Stanley Investment Management Inc. London team	Free cash flow value	843.2
Morgan Stanley Investment Management Inc. Singapore team	Asia ex Japan – growth	89.3
10. Oaktree Capital Management, LLC OCM Emerging Markets Feeder Fund, L.P.	Small emerging Asia – long/short	137.0
11. Pictet International Management Limited Emerging markets equity team	Emerging markets – mid cap, core with a value bias	114.8
International small cap equity team	Small cap – value with growth	278.4
12. Scottish Widows Investment Partnership Ltd	Europe – growth and value	323.9
13. State Street Global Advisors Australia and New Zealand Europe	Australia and New Zealand – index Europe – index	40.9 423.3
14. Templeton Investment Counsel, LLC	5–year stock value	666.5
Templeton Investment Counsel, Ltd. Global emerging markets team		
Templeton Strategic Emerging Markets Fund, L.P.	Emerging markets private equity	140.4
TIFI Emerging Markets Series	Emerging markets – value	<u>98.2</u>
Total International Stocks		<u><u>\$5,433.7</u></u>

<i>Currency Overlay</i> Investment Advisor	Investment Style	*Market Value as of 12/31/03 (\$ millions)
1. Pareto Partners	Currency overlay	\$ - 6.5
2. Record Treasury	Currency overlay	<u>-28.6</u>
Total Currency Overlay		\$ -35.1
Total International and Currency Overlay		<u>\$5,398.6</u>

**Includes stocks and cash which the manager had available for investment. Numbers may not add due to rounding.*

Summary of Fixed Income Investments

Fixed Income is one of eight major asset classes that SERS uses to diversify the investments of the Fund. The SERS' Investment Plan diversifies Fixed Income investments and balances Fixed Income management styles. SERS contracts with external investment advisors to manage portfolios.

Policy: The Fixed Income asset class is employed by the Fund because of its ability to generate current income from interest payments, increase the value of the Fund through the reinvestment of those interest payments, serve as a Benefit Payment Reserve during periods of financial stress, serve as a hedge against disinflation and/or deflation and to help diversify the overall Fund. The Fixed Income asset class is managed on a total return basis. In the Fixed Income asset class, SERS' long-term investment objective is to achieve a total return, net of fees, that exceeds the total return of the SERS Custom Fixed Income Index which is comprised of the Lehman Intermediate, Lehman Aggregate, the Salomon High Yield and Salomon World Government Bond indexes. SERS' 2003 Investment Plan targets a long-term allocation of 25% of assets of the total Fund to the Fixed Income asset class. Of this amount, 80% is targeted to the core strategies and 20% to specialty strategies.

As a result of the increased emphasis on the benefit payment reserve within fixed income, the purpose of the specialty strategies is to play a lesser role in the fixed income asset class. The specialty strategies consist of two corporate high yield portfolios, three subordinated debt portfolios, and one high yield commercial mortgage-backed securities portfolio. In addition, emerging market debt, a growing and important part of the global fixed income universe, is used opportunistically within the corporate high yield portfolios with an allocation of up to 20% in each of these portfolios.

Market Value as of December 31, 2003: Fixed Income had a \$4,131.2 million market value, 16.8% of the total Fund's \$24,560.3 million market value on December 31, 2003.

Number of Investment Advisors: SERS had contracts with 14 external investment advisors to manage portfolios within the Fixed Income asset class as of December 31, 2003.

Number of Investment Portfolios: SERS had a total of 15 portfolios within the Fixed Income asset class.

Type of Investment Portfolios: The Fixed Income asset class is divided into core and high yield return, disinflation/deflation, benefit reserve payments and diversification needs of the Fund. The specialty strategy portfolios focus on debt instruments offering higher return premiums and different risk characteristics than traditional fixed income securities.

Core: SERS had eight actively managed core bond portfolios with a market value of \$2,435.5 million and one passively managed core bond portfolio with a market value of \$240.2 million. The combination of core portfolios represented 64.8% of the asset class. The core portfolio segment of the asset class includes exposure to both international and global fixed income.

Specialty: SERS had two corporate high yield portfolios with a market value of \$1,181.1 million, one high yield commercial mortgage-backed securities portfolio with a market value of \$214.7 million, and three subordinated debt portfolios with a market value of \$59.8 million that invest in profitable Pennsylvania companies. The combination of specialty portfolios represented 35.2% of the asset class.

<i>Fixed Income</i> Investment Advisor	Investment Style	*Market Value as of 12/31/03 (\$ millions)
<u>Core</u>		
1. Fischer Francis Trees & Watts	Active international	\$ 350.9
2. Goldman Sachs Asset Management	Active domestic intermediate duration	357.1
3. Legg Mason Real Estate Advisors	Whole-loan mortgages	51.4
4. MDL Capital Management	Active domestic	90.0
5. Standish Mellon	Domestic – index	240.2
6. Morgan Stanley	Active domestic	770.0
Morgan Stanley	Active global	362.6
7. NISA Investment Advisors	Active domestic intermediate duration	359.8
8. Taplin, Canida & Habacht	Active domestic	93.7
<u>Specialty</u>		
9. Berwind Financial Group	PA Capital Fund	13.6
10. Fidelity Management Trust Company	Commercial mortgage backed securities	214.7
11. Oaktree Capital Management	Mezzanine Fund	29.5
12. PNC Equity Management	PA Capital Fund	16.7
13. Salomon Brothers Asset Management	High yield bonds	625.0
14. W. R. Huff Asset Management	High yield bonds	<u>556.1</u>
Total		<u>\$4,131.2</u>

**Includes securities and cash that the manager had available for investment. Numbers may not add due to rounding.*

Summary of SERS Cash Investment

Cash is one of eight major asset classes that SERS uses for investments of the Fund. The SERS' Investment Plan calls for minimizing cash balances while meeting cash flow requirements.

Policy: Cash investments are employed by the Fund to provide for SERS' liquidity needs and to accumulate funds for future permanent investment. The Cash asset class is to be managed on a total return basis, with the exception that temporary investments may alternatively be evaluated on a yield-to-maturity basis given their extremely short maturities.

In the Cash asset class, SERS' long term investment objectives are to achieve a total return, net of fees, that exceeds the total return on 90 day U.S. Treasury Bills. SERS' current Investment Plan targets an allocation of 0% of assets to the Cash asset class.

Market Value as of December 31, 2003: Cash had a \$225.8 million market value, 0.9% of the total Fund's \$24,560.3 million market value on December 31, 2003.

Number of Investment Advisors: In accordance with SERS' 2003 Investment Plan, SERS utilizes the Pennsylvania State Treasury Department to manage its cash accounts.

Number of Investment Portfolios: SERS' cash portfolio is managed by the Pennsylvania State Treasury Department.

Type of Investment Portfolios: SERS' Cash asset class currently employs a money market short-term investment strategy. The portfolio also contains the uninvested cash balances held by other SERS' investment advisors in other asset classes.

In the aggregate, State Treasury managed \$512.3 million on behalf of SERS and SERS' external investment advisors as of December 31, 2003.

Summary of Real Estate Investments

Equity Real Estate is one of eight major asset classes that SERS uses to diversify the investment of the Fund. SERS' investment plan diversifies Real Estate investments and balances real estate management styles. In accordance with the plan, SERS contracts with external investment advisors to manage portfolios.

Policy: Equity Real Estate investments are generally long-term, illiquid investments that due to their high correlation with inflation provide an inflation hedge and, due to their low correlation with stocks and bonds, provide diversification within the total portfolio. It is expected that the long-term total return (income and appreciation) for real estate will fall between that of stocks and bonds. The Equity Real Estate asset class is managed on a total return basis.

In the Equity Real Estate asset class, SERS' long-term investment objective is to achieve a total return that exceeds the total return of the NCREIF Index. SERS' 2003 Investment Plan targeted an eventual allocation of 8% of assets to the Equity Real Estate asset class.

Investments are made through commingled fund investments, limited partnerships, REITs and separate account portfolios where SERS contracts with external investment advisors to own properties directly or with other co-investors. SERS' Equity Real Estate portfolio guidelines provide for diversification by:

- Transaction structure;
- Property type;
- Geographic location; and
- Development phase.

Market Value as of December 31, 2003: Real Estate had an estimated \$2,239.6 million market value, approximately 9.1% of the total Fund's December 31, 2003, market value. This market value represents September 30, 2003, actual numbers adjusted for cash flows, which occurred in the fourth quarter 2003.

Number of Investment Advisors: SERS had contracts with 23 external investment advisors to manage real estate portfolios as of December 31, 2003.

Number of Investment Portfolios: SERS had investments in 42 real estate portfolios managed by the 23 investment advisors.

Type of Investment Portfolios: As of September 30, 2003, the composition of the real estate portfolio was:

40% pooled funds, 60% separate accounts;
32% office, 7% industrial, 13% retail, 16% residential, 15% hotel/motel, 6% timber, 11% other;
16% Pennsylvania, 26% East excluding PA, 27% West, 18% South, 10% Midwest, 2% International, 1% Unclassified;
and
36% of the market value of the separate accounts was invested in seventeen investments located in Pennsylvania.

Real Estate Investment Advisor	SERS Initial Funding	Property Type	Transaction Structure	Market Value as of 9/30/03 (\$ millions)
1. AEW CIIF–II	08/08/88	Industrial, other	equity ownership	\$ 0.9
2. Apollo – AREF III	06/26/98	Opportunistic	equity and debt	47.7
3. Berwind – BPG Fund IV	04/20/98	Opportunistic	equity and debt	14.6
BPG Fund V	11/29/99	Opportunistic	equity and debt	23.0
BPG Fund VI	09/09/02	Opportunistic	equity and debt	8.9
4. Blackstone – BREP II	02/26/97	Opportunistic	equity and debt	19.2
BREP III	10/22/99	Opportunistic	equity and debt	37.3
BREP IV		Opportunistic	equity and debt	–
5. Campbell Group		Timber	equity ownership	–
6. Cliffwood Select Equity Fund	08/04/00	Long/Short REITs	public securities	27.7
7. CRA Securities	01/31/96	REITs	public securities	428.3
8. Forest Investment Assoc.	10/30/92	Timber	equity ownership	145.8
9. Heitman Capital Mgmt	12/28/87	Diversified	equity ownership	153.8
JMB Group Trust III	12/31/84	Office, retail	equity ownership	0.1
10. LaSalle Investment Mgmt.	10/01/93	Diversified	equity ownership	145.0
11. Legg Mason Real Estate Adv.	10/01/93	PA diversified	equity ownership	159.4
Eastern Retail Holdings	01/07/99	Retail	equity and debt	51.0
12. Lowe Enterprises	10/01/93	Diversified	equity ownership	327.4
13. Lubert–Adler Fund II	10/30/98	Opportunistic	equity and debt	22.4
Lubert–Adler Fund III	11/10/00	Opportunistic	equity and debt	25.7
14. Miller Global Fund III	01/19/99	Diversified	equity and debt	11.5
15. Oaktree Capital Management:				
TCW Fund VI	04/20/94	Opportunistic	equity and debt	9.5
OCM Opportunity Fund A	05/09/96	Opportunistic	equity and debt	43.0
OCM Opportunity Fund II	12/15/98	Opportunistic	equity and debt	37.9
OCM Opportunity Fund III	03/05/03	Opportunistic	equity and debt	7.6
16. Oxford Development	01/09/97	Industrial	equity ownership	50.8
17. Prudential Senior Housing I	12/22/98	Senior housing	equity and debt	25.9
Prudential Senior Housing II	06/12/01	Senior housing	equity and debt	11.7
18. Sentinel Corp.	07/31/84	Diversified	equity ownership	61.9
19. Starwood:				
SOFI IV	03/24/97	Opportunistic	equity and debt	15.8
SOFI V	05/14/99	Opportunistic	equity and debt	44.9
SOFI VI	03/27/03	Opportunistic	equity and debt	22.7
20. UBS–Brinson:				
PMSA	09/30/83	Diversified	equity mortgages	55.9
RESA	06/3//84	Diversified	equity ownership	61.2
Multifamily Trust	08/02/99	Residential	equity ownership	56.5
21. Urdang Investment Mgmt.	05/15/02	REITs	public securities	31.2
22. Westbrook Partners:				
WREF II	06/16/97	Opportunistic	equity and debt	16.8
WREF III	09/01/98	Opportunistic	equity and debt	56.6
WREF IV	05/01/01	Opportunistic	equity and debt	46.9
23. Goldman Sachs:				
Whitehall V & VI	04/20/94	Opportunistic	equity and debt	8.2
Whitehall V–S & VI–S	12/11/95	Opportunistic	equity and debt	1.9
Whitehall VII & VIII	05/28/96	Opportunistic	equity and debt	16.1
September 30, 2003 Total				\$2,332.9
4th Quarter 2003 Net Cash Flow Adjustments				–93.3
December 31, 2003 Total				<u>\$2,239.6</u>

* Numbers may not add due to rounding.

Summary of Alternative Investments



Alternative Investments is comprised of Venture Capital and Private Equity investments, both of which take the form of limited partnerships.

Venture Capital and Private Equity Defined

Venture Capital is the financing of young, rapidly growing companies, typically at three stages of development. (1) Seed and Early Stage: Seed is the form of venture capital that supports companies in their conceptual phase, i.e., a product and market are identified, and a corporation may have been formed. Early Stage financing supports companies pursuing a business plan but not yet generating meaningful revenues. The product has been developed and may have been shipped to customers for testing. Management positions have been filled and an operating team is in place. (2) Late Stage financing supports companies that have proven revenues, and are in the process of rolling out operations and building sales to achieve profitability. (3) Growth or Expansion Financing supports profitable or nearly profitable businesses that, lacking access to significant debt financing, need capital for growth and expansion. Companies at either the later stage or growth or expansion stage may be nearing a strategic sale to another company or an initial public offering.

Private Equity primarily refers to investments in the equity and subordinated debt of established companies. Private equity approaches undertaken by SERS' limited partnerships include: (1) Leveraged buyout ("LBO") in which companies are acquired through the use of borrowed funds, or a combination of borrowed funds and contributed equity capital. The acquired company's assets serve as collateral for the borrowed funds, which are repaid from the company's cash flows. (2) Distressed debt investing involves (a) de-leveraging of debt-laden, but successful, companies by infusing capital to permit debt reduction in exchange for an equity stake in the company, or (b) acquiring debt of a troubled, sometimes bankrupt company, at steep discounts to face value, followed by assistance to return the company to profitability to permit selling of the debt securities at levels above the discounted purchase price. (3) Secondary interests in established private equity fund—these interests are purchased from other investors who seek liquidity or desire to realign or rebalance its investment portfolio, often for non-financial reasons. Such partnerships interests are often purchased at significant discounts to net asset value and often occur when the acquired partnerships begin to realize profits.

Investment Objective: SERS' long term investment objective for Alternative Investments is to achieve a risk-adjusted total return, net of fees, in excess of the return generated by the S&P 500 Index. SERS' 2003 Investment Plan anticipates a long-term allocation range with a midpoint of 14%.

Market Value as of December 31, 2003: The asset class total market value stood at \$2,643.5 million after adjusting the September valuation for subsequent cash flows in the 4th quarter. Alternative investments represent 10.8% of the Fund. Sub-asset class market values and fund percentages were as follows:

	Total Active Commitments (\$ mil)	Market Value (\$ mil)	Percent Allocation to Total Fund
Venture Capital	\$2,491	\$ 691.4	2.8%
Private Equity	4,279	1,952.1	8.0%
Total Alternative Investments	<u>\$6,770</u>	<u>\$2,643.5</u>	<u>10.8%</u>

Number of Limited Partnerships: As of December 31, 2003, SERS had made commitments to 194 active Alternative Investments limited partnerships; 86 commitments were made to Venture Capital partnerships and 108 to Private Equity partnerships. (This does not include thirteen partnerships—ten Venture Capital and three Private Equity—that are now “inactive,” or in the liquidation phase, and investments pending contract approval.)

Summary of Alternative Investments

SERS Venture Capital Portfolio

SERS Venture Capital program includes commitments to 86 venture capital limited partnerships, comprising a fund portfolio that is well-diversified by stage of investment, industry focus, and geography. This fund portfolio holds investment interests in almost 1,800 growing companies, the majority of them working to commercialize novel solutions to current and future challenges in information technology, communications, and medicine.

Although the program's scope has expanded over the years to include top investment funds nationally and internationally, thirty-four of these partnerships have investments that are either located in Pennsylvania or employ Pennsylvania citizens. This significant Pennsylvania component recognizes the program's initial statutory mandate, as well as its ongoing effort to invest in Pennsylvania venture capital funds whose expected returns are expected to be competitive to those of investment opportunities elsewhere.

The Venture Capital program also includes investments in six funds-of-funds, which are limited partnerships that, in turn, invest in venture capital funds. Four of these fund-of-funds commitments have the strategic goal of enabling SERS to gain indirect exposure to many top-tier venture capital funds to which direct access by SERS would otherwise be difficult. The other two of these commitments are to funds investing in minority-focused venture capital funds.

SERS Private Equity Portfolio

The Private Equity program has commitments to 108 buyout-oriented partnerships, which are well-diversified by size of investment and geographic focus. This fund portfolio holds investment interests in over 1,700 companies. Hostile acquisitions are avoided; most transactions are privately negotiated rather than auctioned, and are usually completed with present management in place.

Of these buyout fund investments, fifteen are in distressed debt funds. These funds each conduct their distressed investment strategies in a differentiated manner; i.e., they employ control or non-control approaches, and accordingly, have differing degrees of active influence over the companies in which they invest.

SERS' nineteen non-U.S. private equity fund investments include sixteen funds investing in companies based in the U.K. and Europe (including one Scandinavian fund) and three funds investing in Asian companies. The U.K./Europe funds are attempting to capitalize on recent trends favoring the restructuring of large companies, generational succession in businesses established after World War II, and the cross-border business opportunities within the region since the formation of the European Economic Union and currency harmonization. The Asian partnership investments focus on the expanded opportunities in the region created by attractive valuations, favorable demographic trends, and changing attitudes regarding foreign investment.

The Private Equity program also includes investments in three international fund-of-funds, whose objective is to capture superior returns from select funds globally, many of which would be impractical for SERS limited staff to research because of their location. These fund-of-funds' holdings are well-diversified with a geographic emphasis on developed countries.

Finally, the program includes five partnerships that specialize in secondary purchases of interests in established buyout and venture capital partnerships.

SERS Venture Capital Committed, Drawn and Distributed

As of December 31, 2003

The Capital Committed column represents total dollars allocated from SERS to each limited partnership. Capital Drawn is the portion of SERS capital commitments drawn by the General Partner to be placed with underlying portfolio companies. The Distributions column shows the value of original capital and profits returned to SERS.

Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
1. Abingworth	Seed/Early	9/1/2003	\$ 20,000,000	\$ 56,000	
2. Accel Europe	Early Stage	7/2/2001	10,000,000	2,200,000	
3. Adams Capital Management II	Early Stage	10/1/1999	30,000,000	26,400,000	
Adams Capital Management III	Early Stage	11/21/2000	30,000,000	13,050,000	
4. Advanced Technology Ventures VI0	Early Stage	3/9/2000	10,000,000	8,125,00	
Advanced Technology Ventures VII	Diversified	7/11/2001	30,000,000	6,000,000	
5. Alloy Ventures 2000	Seed/Early	5/19/2000	20,000,000	16,000,000	\$ 2,074,620
Alloy Ventures 2002	Seed/Early	7/22/2002	25,000,000	3,750,000	1,170,217
6. APA/Excelsior VI	Diversified	7/3/2000	35,000,000	16,780,766	2,233,352
PA Fund I (APA/Fostin II)	Diversified	6/2/1993	30,000,000	29,999,999	57,512,509
PA Fund III	Diversified	4/1/1997	100,000,000	99,366,750	123,281,098
7. Apex Ventures IV	Early/Later	9/17/1999	25,000,000	25,000,000	257,565
Apex Ventures V	Early Stage	4/19/2002	20,000,000	4,500,000	
8. Atlas Ventures IV	Early/Later	3/23/1999	26,000,000	18,983,249	2,940,527
Atlas Ventures V	Early/Later	2/7/2000	40,000,000	27,799,147	2,566,170
Atlas Ventures VI	Seed/Early	8/1/2001	24,800,000	6,026,459	
9. Austin Ventures VIII	Early Stage	7/26/2001	20,932,140	6,411,989	536,400
10. Bachow Investments III	Diversified	11/9/1994	25,000,000	24,969,997	24,737,989
11. Charles River XI	Early Stage	2/15/2001	11,032,259	5,636,129	
12. Cross Atlantic Technology Fund	Early Stage	2/14/2000	20,000,000	18,600,000	198,860
Cross Atlantic Techn. II	Early Stage	1/28/2002	32,900,000	5,240,124	
Novo Vita (Keystone Ventures VI)	Middle/Later	12/26/2000	11,616,498	9,680,156	
13. Draper Fisher Jurvetson VI	Early Stage	8/13/1999	8,000,000	5,920,000	
Draper Fisher Jurvetson Fund VII	Seed/Early	9/22/2000	20,000,000	7,521,716	
14. Draper Triangle	Early Stage	12/20/1999	20,000,000	14,210,416	158,507
15. Edison Ventures III	Diversified	3/1/1994	25,000,000	25,000,000	44,430,279
16. Fairview Capital I	Minority Fund-of-Funds	9/30/1994	10,000,000	10,000,000	3,017,627
Fairview Capital II	Minority Fund-of-Funds	3/1/1998	10,000,000	8,000,000	511,415 17
17. APA/Fostin – Fund I	Diversified	9/30/1987	20,000,000	20,000,000	76,979,572
Fostin Capital II	Diversified	10/5/1989	8,000,000	7,500,000	11,415,869
18. Frazier Healthcare III	Later Stage	2/4/1999	30,000,000	24,450,000	317,153
Frazie IV	Diversified	9/27/2001	30,000,000	7,500,000	471,282
19. Grotech Partners III	Diversified	6/29/1990	3,000,000	3,000,000	2,910,452
Grotech Partners IV	Diversified	11/1/1993	25,000,000	24,999,999	40,534,437
Grotech Partners V	Diversified	9/18/1998	25,000,000	22,588,216	15,720,810
20. Halpern & Denny II	Early Stage	4/28/1998	27,500,000	24,999,991	284,820
Halpern & Denny III	Early Stage	4/26/2000	25,000,000	17,062,500	
21. HarbourVest Partnership Fund VI	Fund-of-Funds	5/7/1999	200,000,000	102,000,000	13,763,677
HarbourVest Partnership Fund VII	Fund-of-Funds	3/24/2003	75,000,000	750,000	

Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
22. Healthcare Ventures III	Diversified	7/9/1992	\$ 15,000,000	\$ 15,000,000	\$ 25,018,365
Healthcare Ventures V	Diversified	10/17/1997	25,000,000	24,312,500	33,059,001
Healthcare Ventures VI	Diversified	6/19/2000	35,000,000	28,000,000	2,412,611
Healthcare Ventures VII	Early Stage	7/24/2002	35,000,000	6,825,000	
23. Highland Capital VI	Early Stage	10/25/2001	25,000,000	5,687,500	
24. Ignition Venture Partners II	Seed/Early	12/17/2001	8,600,000	1,082,472	70
25. InterWest Partners VIII	Early/Later	8/25/2000	25,000,000	11,250,000	251,778
26. JH Whitney Equity	Early Stage	3/12/1998	20,000,000	19,750,140	24,673,458
Partners III					
JH Whitney Equity	Early Stage	2/1/2000	20,000,000	16,412,208	673,784
Partners IV					
JH Whitney Equity	Early/Later	3/29/2001	20,000,000	11,837,781	1,752,618
Partners V					
27. JP Morgan VC Instl'	Fund-of-				
Investors I	Funds	7/8/1999	100,000,000	72,572,113	5,108,348
JP Morgan VC Instl'	Fund-of-				
Investors II	Funds	10/10/2000	100,000,000	17,580,096	634,118
28. Keystone Ventures IV	Middle/Later	7/21/1993	15,000,000	14,980,880	9,687,679
Keystone Ventures V	Middle/Later	12/29/1997	25,000,000	25,000,000	
29. Kline Hawkes Pacific II	Diversified	8/30/2000	15,000,000	6,000,000	
30. Meritech Capital II	Later Stage	1/2/2001	18,750,000	5,968,750	
31. Morgenthaler Partners VII L.P.	Early/Later	7/26/2001	35,000,000	10,500,000	
32. NEA VI	Early/Later	3/2/1994	25,000,000	25,000,000	195,387,619
NEA VII	Early/Later	4/1/1997	30,000,000	30,000,000	88,669,405
NEA IX	Seed/Early	11/15/1999	20,000,000	19,600,000	765,090
NEA X	Seed/Early	12/11/2000	35,000,000	20,125,000	2,113,889
33. NEPA Venture-II	Seed/Early	7/24/1992	8,000,000	7,500,000	30,895,734
NEPA - Mid-Atlantic Ventures III	Seed/Early	4/1/1997	20,000,000	20,000,000	1,311,603
NEPA - Mid-Atlantic Ventures IV	Early Stage	5/4/2000	30,000,000	18,900,000	217,297
34. PA Early Stage Partners III	Early Stage	4/17/2003	10,000,000	700,000	
35. Polaris Venture Partners	Early Stage	6/4/1996	15,000,000	14,595,000	44,716,729
Polaris Venture Partners II	Early Stage	9/8/1998	25,000,000	23,250,000	24,859,455
Polaris Venture Partners III	Early Stage	1/21/2000	50,000,000	37,500,000	1,006,955
Polaris Venture Partners IV	Early Stage	9/30/2002	50,000,000	3,500,000	
36. Quaker Bio Ventures	Early Stage	2/20/2003	20,000,000	1,600,000	
37. Sprout VII	Diversified	2/24/1995	18,000,000	18,000,000	30,647,899
38. Summit IV	Later Stage	6/27/1995	25,000,000	23,750,000	178,362,673
Summit V	Later Stage	3/9/1998	37,500,000	32,437,500	14,838,569
Summit Accelerator	Early Stage	11/15/1999	8,000,000	5,040,000	702,346
39. TA Associates - Advent VII	Diversified	7/30/1993	25,000,000	25,000,000	89,170,828
TA Associates - Advent VIII	Diversified	2/1/1997	30,000,000	29,100,000	30,976,276
TA Associates - Advent IX	Diversified	9/20/2000	45,000,000	15,525,000	900,000
40. Technology Leaders III	Diversified	1/3/1997	15,000,000	15,000,000	18,583,705
Technology Leaders IV	Diversified	5/13/1999	35,000,000	29,750,000	7,974,759
Technology Leaders V	Diversified	10/18/2000	40,000,000	14,400,000	166,156
41. Three Arch Capital	Later Stage	12/20/2000	20,000,000	8,800,000	106,758
42. U.S. Venture Partners VII LP	Early/Later	2/18/2000	15,000,000	11,325,000	
U.S. Venture Partners VIII LP	Early Stage	6/1/2001	35,000,000	11,580,000	
43. Weston Presidio II	Diversified	11/27/1995	20,000,000	17,000,000	36,417,685
Weston Presidio III	Diversified	3/31/1999	35,000,000	28,875,000	12,363,802
Weston Presidio IV	Diversified	6/21/2000	35,000,000	14,350,000	
44. Worldview IV	Early/Later	1/31/2001	18,130,023	7,505,433	513,361
Total			\$2,490,760,920	\$1,522,535,976	\$1,342,965,630

Commitments as of 12/31/03

Cash flows as of 9/30/03

Inactive Funds

Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
1. CEO Venture Fund II	Diversified	7/14/1989	\$ 7,500,000	\$ 7,483,963	\$ 5,194,904
2. CEO S	Diversified	7/1/1987	8,000,000	982,003	1,239,189
3. Fostin Capital	Diversified	11/25/1985	10,000,000	10,000,000	10,535,024
4. Keystone Ventures II	Middle/Later	11/1/1985	10,000,000	10,000,000	22,401,982
5. NEPA Venture I	Seed/Early	8/29/1985	2,000,000	2,000,000	11,936,763
6. Point Ventures II	Diversified	10/2/1990	1,000,000	1,000,000	1,313,407
7. PNC Ventures	Diversified	11/25/1985	5,000,000	5,000,000	12,055,375
8. Pittsburgh Seed Fund	Seed	1/13/1987	2,000,000	2,000,000	1,016,649
9. TDH II	Diversified	11/25/1985	9,000,000	9,000,000	15,990,106
10. Zero Stage II	Seed	4/30/1987	<u>2,000,000</u>	<u>2,000,000</u>	<u>628,401</u>
Total			<u>\$56,500,000</u>	<u>\$49,465,966</u>	<u>\$82,311,800</u>

SERS Private Equity Investments Committed, Drawn and Distributed *As of December 31, 2003*

The Capital Committed column represents total dollars allocated from SERS to each limited partnership. Capital Drawn is the portion of SERS capital commitments drawn by the General Partner to be placed with underlying portfolio companies. The Distributions column shows the value of original capital and profits returned to SERS.

Limited Partnership	Financing Stage Geographic Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
1. ABACUS Fund	Hedge	4/24/2000	\$ 15,000,000	\$15,000,000	\$ 7,703,416
2. ABRY Broadcast Partners III	Natl' B/O	4/1/1997	25,000,000	25,664,393	16,552,939
ABRY Broadcast Partners IV	Natl' B/O	3/30/2001	35,000,000	12,808,518	1,371,443
ABRY Mezzanine Partners	Mezzanine	3/15/2002	30,000,000	7,886,006	586,096
3. ABS Capital III	Natl' B/O	1/26/1999	35,000,000	26,684,508	3,083,462
ABS Capital IV	Natl' B/O	10/13/2000	35,000,000	13,439,227	2,940,560
4. AG Capital Recovery II	Distressed	10/1/2001	17,600,000	17,600,000	
AG Capital Recovery III	Distressed	4/1/2002	20,000,000	16,000,000	
AG Capital Recovery IV	Distressed	1/23/2003	50,000,000	17,500,000	
5. Alpha Private Equity Fund IV	France/Germ	5/15/2002	26,580,000	7,311,396	
6. APAX Europe IV	Pan-Europe	3/31/1999	35,000,000	25,640,657	9,644,736
APAX Europe V	Pan-Europe	4/27/2001	60,000,000	21,892,158	6,879,649
APAX France III	France	11/29/1990	5,000,000	5,103,877	9,775,420
APAX Germany	Germany	1/30/1991	5,200,000	5,246,602	12,101,312
APAX Germany II	Germany	7/15/1997	8,360,738	8,455,477	14,255,238
APAX UK VI	U.K.	12/9/1997	9,000,000	6,569,925	10,010,403
7. Apollo IV	Natl' B/O	8/3/1998	75,000,000	69,176,162	13,907,042
Apollo V	Natl' B/O	8/23/2001	50,000,000	14,083,805	2,753,203
8. Asia Pacific III	Asia	9/28/1999	15,000,000	14,519,345	802,809
9. Audax Private Equity Fund	Mid-Mkt B/O	5/25/2000	35,000,000	20,237,527	910,219
10. Avenue Special Situations III	Distressed	8/25/2003	50,000,000	27,490,288	
11. B III Capital Partners (DDJ)	Distressed	8/1/1997	35,000,000	34,423,917	27,338,517
12. Bain Capital Fund VII	Natl' B/O	7/6/2000	25,000,000	12,250,000	772,500
13. BC European Capital VII	Pan-Europe	7/28/2000	35,000,000	20,159,954	3,009,031
BC VII Top Up	Pan-Europe	7/2/2001	10,000,000	4,665,054	
14. Berkshire Fund VI	Mid-Mkt B/O	7/11/2002	20,000,000	2,681,521	3,297,327
15. Blackstone Commun. Ptnrs I	Global B/O	8/29/2000	25,000,000	6,044,843	1,006,460
Blackstone II	Global B/O	8/26/1994	40,000,000	42,438,924	75,045,420
Blackstone III	Global B/O	11/3/1997	75,000,000	69,800,708	23,633,847
Blackstone IV	Global B/O	2/26/2003	75,000,000	4,968,047	
16. Cerberus Institutional Partners	Distressed	3/5/1999	35,000,000	35,000,000	
Cerberus Instl' Series Two	Distressed	10/9/2001	35,000,000	28,000,793	
Cerberus Instl' Series Three	Distressed	12/29/2003	35,000,000	6,300,000	
17. Charterhouse Development Capital VII (European)	U.K.	1/17/2003	50,000,000	3,765,301	59,910
18. Charterhouse II	Natl' B/O	3/30/1994	40,000,000	42,757,326	96,810,448
Charterhouse III	Natl' B/O	11/19/1997	50,000,000	48,744,600	9,191,912
19. Clayton, Dubilier & Rice V	US/Europe	5/3/1995	50,000,000	49,236,502	4,736,500
Clayton, Dubilier & Rice VI	US/Europe	1/4/1999	50,000,000	29,040,155	
20. Code, H. & Simmons I	Midwest B/O	9/28/1989	10,000,000	9,650,000	29,205,914
Code, H. & Simmons II	Midwest B/O	7/12/1994	20,000,000	20,000,000	36,593,301
Code, H. & Simmons III	Midwest B/O	8/1/1997	40,000,000	38,423,990	15,018,550
Code, H. & Simmons IV	Midwest B/O	9/16/1999	100,000,000	49,120,000	349,004
21. DLJ Merch. II	Global B/O	5/22/1997	75,000,000	76,009,161	41,836,813
DLJ III	Global B/O	8/14/2001	85,000,000	55,894,266	7,501,565

Limited Partnership	Financing Stage Geographic Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
22. Francisco Partners	Natl' B/O	7/27/2000	\$50,000,000	\$27,750,000	\$ 801,335
23. Frontenac VII	Midwest B/O	8/1/1997	40,000,000	40,000,000	34,106,842
24. Great Hill	Natl' B/O	4/12/1999	30,000,000	26,815,114	
Great Hill II	Natl' B/O	3/28/2001	35,000,000	12,091,804	
25. Gryphon Partners II	Natl' B/O	11/3/1999	35,000,000	17,345,728	2,475,108
26. GTCR V	Natl' B/O	4/25/1997	11,400,000	11,400,000	9,695,965
GTCR VI	Natl' B/O	6/25/1998	50,000,000	50,375,000	28,222,371
GTCR VII	Natl' B/O	3/15/2000	55,000,000	38,568,750	10,779,732
GTCR VIII	Natl' B/O	7/7/2003	75,000,000	1,125,000	
27. HarborVest International II	Intl' F of F	4/1/1997	25,000,000	23,604,775	16,278,461
HarborVest International III	Intl' F of F	6/22/1998	40,000,000	26,800,000	3,300,683
HarborVest International IV	Intl' F of F	4/9/2001	40,000,000	6,000,000	
28. Hellman & Friedman II	Global	1/7/1992	21,130,323	23,218,222	39,736,146
Hellman & Friedman III	Global	6/14/1995	50,000,000	40,308,123	74,261,637
Hellman & Friedman IV	Global	2/14/2000	75,000,000	40,542,563	17,886,824
29. Invemed Fund	Mid-Mkt B/O	10/19/1999	25,000,000	11,544,462	1,176,208
30. JP Morgan Corp. Finance	Fund-of-funds	7/24/2002	50,000,000	2,888,722	711
31. JW Childs III	Natl' B/O	8/20/2002	40,000,000	4,609,119	
32. Kelso V	Natl' B/O	1/26/1994	40,000,000	53,753,871	77,787,487
Kelso VI	Natl' B/O	7/7/1998	75,000,000	59,034,751	20,766,377
33. Landmark IV	Secondaries	2/28/1995	14,900,000	12,495,850	14,677,776
Landmark V	Secondaries	1/27/1996	20,000,000	19,391,580	19,131,692
34. Lexington II	Secondaries	4/1/1998	40,000,000	36,514,000	17,244,000
Lexington III	Secondaries	1/26/1999	35,000,000	31,877,730	21,456,363
Lexington V	Secondaries	1/17/2002	75,000,000	13,508,495	3,089,264
35. LLR I	Mid-Mkt B/O	2/4/2000	25,000,000	17,483,915	6,259,711
36. M/C Partners III	Natl' B/O	6/30/1997	25,000,000	22,968,750	17,560,016
M/C Partners IV	Natl' B/O	3/31/1999	25,000,000	23,125,000	
M/C Partners V	Natl' B/O	9/29/2000	35,000,000	17,321,980	
37. Madison Dearborn I	Buyouts	2/23/1993	15,000,000	14,503,896	32,552,017
Madison Dearborn II	Buyouts	1/3/1997	40,000,000	39,476,313	41,464,716
Madison Dearborn III	Buyouts	4/6/1999	75,000,000	71,277,386	17,812,801
Madison Dearborn IV	Buyouts	4/2/2001	90,000,000	19,237,662	4,332,757
38. MatlinPatterson Global Opportunities Partner	Distressed	5/4/2001	35,000,000	34,747,141	11,294
39. Newbridge Asia II	Asia	9/3/1999	15,000,000	14,618,945	2,546,944
Newbridge Asia III	Asia	2/15/2001	15,000,000	2,037,918	
40. Nordic Capital V	Scandinavia	8/4/2003	35,000,000	*	
41. Oakhill	Natl' B/O	5/17/1999	50,000,000	42,910,187	4,719,867
42. OCM Opportunities	Distressed	1/12/1996	24,000,000	24,000,000	31,659,140
OCM Opportunities II	Distressed	2/5/1998	40,000,000	40,000,000	25,732,441
OCM Opportunities III	Distressed	1/20/2000	60,000,000	60,000,000	37,439,418
OCM Opportunities IV	Distressed	9/26/2001	70,000,000	75,250,000	40,441,781
OCM Principal I	Distressed	11/12/1996	25,000,000	25,000,000	4,700,528
Opportunities Fund					
OCM Principal II	Distressed	4/24/2001	25,000,000	21,250,000	5,896,265
43. Palamon Equity Partners	Pan-Europe	7/23/1999	30,000,000	16,485,959	1,144,365
44. Parthenon Investors II	Mid-Mkt B/O	8/9/2001	20,000,000	4,238,240	395
45. Permira European I	Pan-Europe	7/1/1997	36,000,000	32,159,947	52,914,983
Permira European II	Pan-Europe	6/7/2000	50,000,000	31,540,264	5,324,055
Permira Ventures UK III	U.K.	8/29/1989	10,000,000	8,946,988	25,318,730
Permira Ventures UK IV	U.K.	4/2/1996	15,000,000	15,794,739	12,240,822
46. Providence Equity IV	US/Europe	11/27/2000	25,000,000	11,359,071	1,271,557
47. RRZ Private Equity Fund	PA B/O	11/7/1996	20,000,000	18,922,630	
48. SCP Private Equity II	Natl' B/O	6/15/2000	25,000,000	14,531,603	575,167
49. ShoreView Capital Partners	Natl' B/O	6/16/2003	38,000,000	1,697,494	

Limited Partnership	Financing Stage Geographic Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
50. Sterling Capital Partners	Mid-Mkt B/O	10/31/2002	\$ 15,000,000	\$ 2,685,000	
51. Summit Ventures VI	Natl' B/O	3/23/2001	62,000,000	11,780,000	740,139
52. TCW V	Natl' B/O	8/25/1994	35,000,000	35,000,000	51,149,425
53. Thomas Lee Equity Fund IV	Natl' B/O	4/24/1998	70,000,000	61,406,998	3,810,173
Thomas Lee Equity Fund V	Natl' B/O	7/3/2001	100,000,000	24,869,553	383,692
54. TPG Partners II	US/Europe	5/2/1997	75,000,000	75,566,799	29,317,790
TPG Partners III	US/Europe	1/13/2000	75,000,000	43,678,970	16,156,035
TPG Partners IV	US/Europe	11/13/2003	30,000,000	*	
55. Vestar Capital III	US/Europe	5/7/1997	25,000,000	21,254,188	9,248,777
Vestar Capital IV	US/Europe	1/25/2000	100,000,000	41,798,167	1,569,216
Total			<u>\$4,279,171,061</u>	<u>\$2,738,174,295</u>	<u>\$1,385,854,965</u>

* Not funded as of 12/ 31/ 03

Commitments as of 12/31/03

Cash flows as of 9/30/03

Inactive Funds

Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
1. Brentwood Buyout Fund	Natl' B/O	Dec-88	\$12,500,000	\$12,548,440	\$21,955,297
2. Murphy & Partners	Natl' B/O	Oct-88	5,200,000	5,194,735	7,862,758
3. RRZ PA Fund #1	PA B/O	Mar-88	10,000,000	10,000,000	19,606,155
Total			<u>\$27,700,000</u>	<u>\$27,743,175</u>	<u>\$49,424,210</u>

Summary of Commodities Investments

Commodities are one of eight major asset classes that SERS uses for investments of the Fund. The SERS' Investment Plan calls for achieving a 2% allocation to the commodity markets by entering into a swap agreement that provides the return that would be achieved by passively holding the underlying commodity futures contracts. The objective of this asset class is to replicate the returns of the Goldman Sachs Commodity Index which is a "basket" of 26 commodities that are traded on U.S. exchanges.

Policy: Commodity investments are employed by the Fund to provide diversification within the total portfolio and to act as a hedge against unexpected inflation. Commodities provide diversification, and lower risk, to the portfolio due to the fact that their prices move independently of the broad market movements that affect other financial assets such as stocks and bonds. They provide an inflation hedge because their prices are linked to global supply and demand conditions for the world's basic commodities. This is the underlying driver of inflation.

The investment objective of the portfolio is to match the return of the Goldman Sachs Commodity Index.

Market Value as of December 31, 2003: The Commodity portfolio had a \$479.5 million market value, 2% of the total Fund's \$24,560.3 million market value on December 31, 2003.

Number of Investment Advisors: NISA Investment Advisors of St. Louis, MO is the sole investment advisor for this strategy.

Number of Investment Portfolios: This strategy currently utilizes only one investment portfolio.

Type of Investment Portfolios: SERS achieves the commodity index return by employing a swap agreement whereby SERS "swaps" the return earned on a short-term cash portfolio for the return of the Goldman Sachs Commodity Index. The advisor manages both the underlying short-term cash portfolio and the swap agreement with a third-party.

ACTUARIAL



Actuary's Certification

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April 21, 2004

Mr. John Brosius
Executive Director
State Employees' Retirement System
30 North Third Street
Harrisburg, PA 17108-1147

Dear Mr. Brosius:

The purpose of this letter is to certify the actuarial adequacy of the contributions being made by the State of Pennsylvania and other participating agencies to the Pennsylvania State Employees' Retirement System (SERS), and to discuss the approach currently being taken toward meeting the financing objectives of the plan.

The results provided herein are based upon the December 31, 2003 actuarial valuation. The December 31, 2003 actuarial valuation recognizes the substantial changes in funding of the retirement system provided for by Act 2003-40, which was enacted in December 2003. The December 31, 2003 actuarial valuation also recognizes the second phase of the retiree cost-of-living adjustment that was effective July 2003.

The funding objective of the plan is set forth in the SERS code. The annual employer contribution is equal to the sum of the following, but not less than 2.00 percent of payroll, for the fiscal year beginning July 1, 2004:

- (1) The employer share of the normal cost.
- (2) The amortization of the December 31, 2001 liability for Act 2001-9 benefits over a 30-year period beginning July 1, 2002 and ending on June 30, 2032.
- (3) The amortization of the remaining unfunded liabilities as of December 31, 2001 over a ten-year period beginning July 1, 2002 and ending on June 30, 2012.
- (4) The amortization of all unfunded liabilities due to supplemental annuities (COLAs) after 2001, or other legislated benefit improvements after June 30, 2003, over ten-year periods beginning with the July first following the effective date of the change.
- (5) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2001 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.

The amortization payments are level amounts over the applicable amortization period. The employer cost is determined as a percent of payroll, and the employer contributes that percent of the payroll of all covered members during each fiscal year. The employer cost is the total of (1) the employer normal cost percent and (2)

the amortization payment on the outstanding liabilities, but not less than any applicable minimum contribution prescribed by the SERS code. The employer contribution rate is based on the results of the actuarial valuation that is performed annually. The most recent valuation was performed as of December 31, 2003.

All costs and liabilities have been determined in conformance with generally accepted actuarial principles and procedures in accordance with the principles of practice prescribed by the American Academy of Actuaries. The calculations were performed on the basis of actuarial assumptions and methods, which are internally consistent, and reasonable (taking into account past experience under the SERS and reasonable expectations) and which in combination represent the best estimate of anticipated experience under the plan.

The actuarial valuation is based on financial and participant data, which is prepared by SERS staff. The data are reviewed for internal and year-to-year consistency as well as general reasonableness prior to their use in the actuarial valuation.

The actuarial valuation uses assumptions regarding future rates of investment return and rates of retirement, withdrawal, death, and disability among SERS members and their beneficiaries. The current set of assumptions used in the December 31, 2003 actuarial valuation was adopted by the Board and was based on actual experience of SERS during the years 1996 through 2000.

The actuarial value of assets is developed by recognizing the difference between the expected actuarial value of assets and the market value of assets over a five-year period.

Government Accounting Standards Board (“GASB”) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans* establishes a range of actuarial cost and amortization methods for the Unfunded Actuarial Accrued Liability. The payments for SERS are within the range established under GASB #25.

The “Schedule of Funding Progress” and “Schedule of Employer Contributions” included in the Financial Section are provided as part of the accounting disclosure statements in accordance with GASB #25. These two schedules were derived from the December 31, 2003 actuarial valuation.

With the exception of the “Schedule of Retirees and Beneficiaries Added to and Removed from Rolls” and the “Summary of Plan Provisions”, the schedules appearing in the Actuarial Section were derived from the December 31, 2003 actuarial valuation.

Based upon the valuation results, it is our opinion that the Pennsylvania State Employees’ Retirement System continues in sound condition in accordance with generally accepted actuarial principles and procedures.

Respectfully submitted,
Hay Group



By
Edwin C. Hustead, F.S.A.
Member American Academy of Actuaries
Enrolled Actuary No. 99-1499



Brent M. Mowery, F.S.A.
Member American Academy of Actuaries
Enrolled Actuary No. 99-3885

Summary of Actuarial Assumptions and Methods

- ♦ The investment rate of return is 8.5% per year based on an underlying rate of inflation of 3.0% per year.
- ♦ The Plan uses a five—year smoothed market approach to value plan assets for actuarial purposes.
- ♦ Actuarial methods are specified by statute. Actuarial assumptions are suggested by the plan's actuary and approved by the SERS Board of Trustees.
- ♦ For current retirees, beneficiaries and survivors, and all active employees, the plan uses the 1983 Group Annuity Mortality Table for both males and females.
- ♦ The rates for probability of retirement and the probabilities of withdrawal from active service, including death, before age and service retirements are presented in the Schedule of Active Member Valuation Data.
- ♦ The projected average salary increase is 6.8% with a range of 5.16% to 8.98%. This increase includes an underlying assumption of 3.0% for inflation. The annual rate of salary increase for promotions and longevity for members is presented in the Schedule of Active Member Valuation Data. For current valuation, the salary increase assumptions for general employees have been modified to reflect the negotiated increases in the latest collective bargaining agreement.
- ♦ The plan uses a variation of the entry-age normal actuarial cost method to determine the liabilities and costs related to the System's benefits. The method is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. This variation should produce approximately the same results as the typical method over the long run. The Plan uses amortization periods of 10 years and 30 years.
- ♦ The Plan does not use an assumption for cost-of-living adjustments in the determination of actuarial valuations.
- ♦ The Plan periodically prepares a study using actual experience in order to develop assumptions to be used in its actuarial valuations. The latest study was completed March 28, 2001, for the period January 1, 1996, through December 31, 2000.
- ♦ The most recent valuation was based on members of the Plan as of December 31, 2003. All census data was supplied by the Plan and was subject to reasonable consistency checks. Asset data was also supplied by the Plan.
- ♦ The actuarial computations were prepared by, or made under the supervision, of a Member of the American Academy of Actuaries (M.A.A.A.).

Schedule of Active Member Valuation

Withdrawal From Active Employment Before Age & Service Retirement Annual Rate of Active Members Separating Within the Next Year As of December 31, 2003

Table A*

Sample Age	MALE						FEMALE					
	<u>Withdrawal</u>				<u>Death</u>	<u>Disability</u>	<u>Withdrawal</u>				<u>Death</u>	<u>Disability</u>
	<u>Years of Service</u>						<u>Years of Service</u>					
	0	5	9	14+			0	5	9	14+		
20	9.60%	0.50%	0.00%	0.00%	0.03%	0.03%	9.50%	2.20%	0.50%	0.00%	0.02%	0.06%
25	9.40	-	-	-	0.03	0.03	8.70	1.70	0.50	-	0.02	0.06
30	9.00	1.00	-	-	0.04	0.08	8.70	1.70	-	-	0.03	0.15
35	8.80	1.70	-	-	0.06	0.15	8.70	1.70	-	-	0.04	0.25
40	8.80	0.60	-	-	0.08	0.23	8.50	3.70	0.80	-	0.06	0.33
45	8.50	1.60	-	-	0.15	0.41	8.30	3.20	0.80	-	0.09	0.52
50	8.30	1.30	-	-	0.27	0.57	8.30	3.20	-	-	0.14	0.78
55	8.30	-	-	-	0.42	0.75	8.30	0.50	-	-	0.22	0.99
60	-	-	-	-	0.62	-	-	-	-	-	0.36	-

Annual Rate of Retirement Table B*

Sample Age	<u>Full Benefits</u>	
	<u>Male</u>	<u>Female</u>
51-61	22.0%	22.0%
62	33.0	33.0
63-64	22.0	22.0
65	34.0	34.0
66	27.0	27.0
67-79	20.0	20.0
80	100.0	100.0

Annual Rate of Salary Increase Table C

<u>Age</u>	<u>Increase</u>
20	5.5%
25	5.5
30	5.3
35	4.6
40	4.0
45	3.5
50	2.8
55	2.1
60	1.8

Reduced Benefits

Sample Age	<u>5-14 Years of Service</u>		<u>>14 Years of Service</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
20	4.0%	4.0%	NA	NA
25	4.0	4.0	NA	NA
30	3.0	4.0	3.0%	4.0%
35	2.0	3.0	2.0	2.0
40	2.0	1.0	2.0	2.0
45	1.0	1.0	2.0	2.0
50	1.0	1.0	2.0	2.0
55	3.0	3.0	3.0	3.0

* The assumptions presented in Table A and Table B on this page were based on a review of SERS's experience from 1996 through 2000. The rates are the probabilities that an event will occur in the year after the valuation. For instance, the male retirement rate of 33% at age 62 means that 330 of every 1,000 male employees age 62 and eligible for full benefits are expected to retire before they reach age 63.

Active Members by Age and Years of Service

Age Group	Years of Service							Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 Plus		
Male									
< 20	26	-	-	-	-	-	-	26	\$20,830
20 - 24	835	6	-	-	-	-	-	841	25,630
25 - 29	2,400	460	4	-	-	-	-	2,864	33,320
30 - 34	2,564	2,293	950	13	-	-	-	5,820	40,752
35 - 39	2,120	2,023	2,937	844	17	-	-	7,941	45,491
40 - 44	1,888	1,456	2,090	2,324	1,036	52	-	8,846	46,447
45 - 49	1,834	1,348	1,683	1,982	2,088	1,124	84	10,143	47,713
50 - 54	1,701	1,237	1,597	1,668	1,683	2,198	1,663	11,747	50,638
55 - 59	1,239	953	1,303	1,287	1,065	1,375	2,709	9,931	53,551
60 - 64	517	463	644	456	349	291	819	3,539	55,218
65+	227	221	302	158	125	97	299	1,429	55,570
Total	15,351	10,460	11,510	8,732	6,363	5,137	5,574	63,127	\$47,717

Average Age: 46.25

Average Service: 13.42

	Years of Service								Average
Age Group	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 Plus	Total	Salary
Female									
< 20	34	-	-	-	-	-	-	34	\$ 21,036
20 - 24	930	27	-	-	-	-	-	957	24,865
25 - 29	1,938	447	36	-	-	-	-	2,421	30,407
30 - 34	1,831	1,097	640	49	-	-	-	3,617	33,894
35 - 39	1,589	978	1,175	742	60	-	-	4,544	36,319
40 - 44	1,722	1,064	1,243	1,225	1,121	110	-	6,485	38,922
45 - 49	1,728	1,142	1,442	1,241	1,474	1,414	239	8,680	41,792
50 - 54	1,315	931	1,301	1,291	1,241	1,521	1,891	9,491	44,049
55 - 59	793	654	970	1,044	945	904	1,243	6,553	44,132
60 - 64	289	310	488	356	326	241	280	2,290	42,999
65+	101	107	202	140	84	64	121	819	42,104
Total	12,270	6,757	7,497	6,088	5,251	4,254	3,774	45,891	\$ 40,120

Average Age: 46.12

Average Service: 13.39

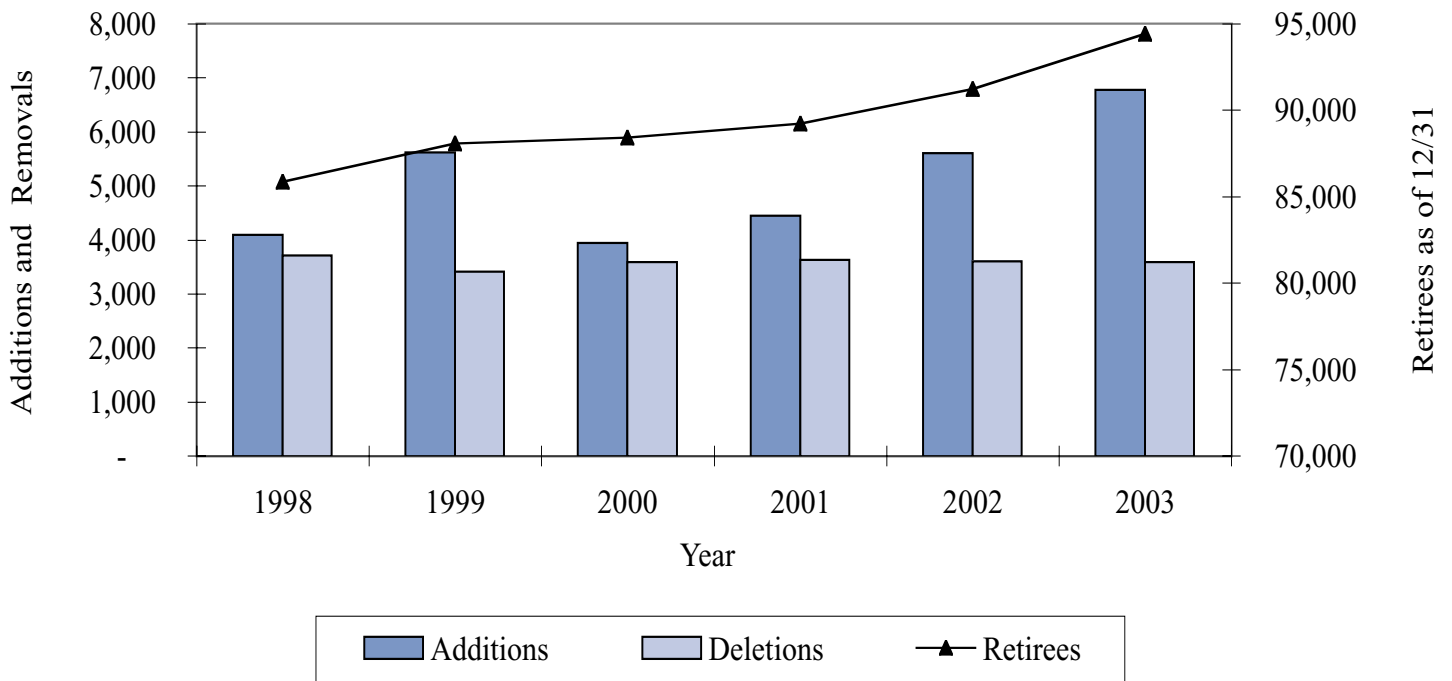
Active Member Valuation Data

Valuation Date	Number Employers	Number Active Members	Annual Payroll	Annual Average Pay	% Increase in Average Pay
31-Dec-03	106	109,018	\$ 4,853,000,000	\$ 44,519	2.0%
31-Dec-02	105	111,059	4,846,000,000	43,631	3.5
31-Dec-01	106	109,716	4,627,000,000	42,172	2.6
31-Dec-00	106	109,469	4,500,000,000	41,110	3.6
31-Dec-99	106	108,035	4,289,000,000	39,698	2.1
31-Dec-98	107	108,893	4,236,000,000	38,898	5.3

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

Year	Added to Rolls		Removed from Rolls		Rolls-End of Year		Percentage Change	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowance
2003	6,769	\$161,875,423	3,585	\$36,430,746	94,412	\$1,332,443,772	3.49%	14.28%
2002	5,605	126,087,119	3,594	31,408,470	91,228	1,165,985,640	2.25%	12.92%
2001	4,444	81,715,244	3,619	30,654,172	89,217	1,032,589,104	0.93%	5.00%
2000	3,939	56,321,173	3,590	29,591,472	88,392	983,432,700	0.40%	2.54%
1999	5,610	95,487,334	3,401	27,375,031	88,043	959,067,216	2.57%	7.40%
1998	4,084	63,468,014	3,707	21,400,971	85,834	892,981,308	0.44%	11.38%

Retiree Rolls

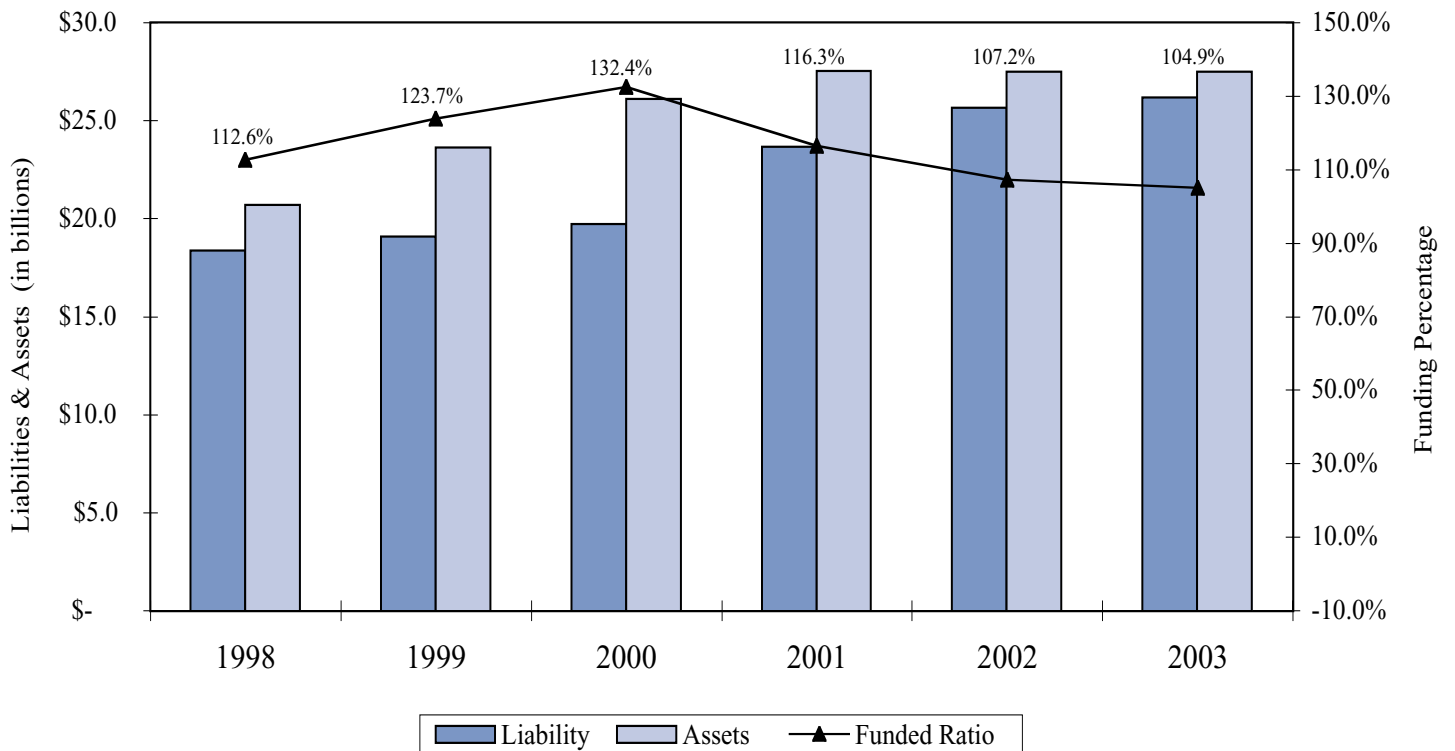


Solvency Test

(Amounts in thousands)

Aggregate Accrued Liabilities For									
Valuation Date	(1)	(2)	(3)	Total Actuarial Accrued Liability (AAL)	Actuarial Valuation of Assets	Portion of Accrued Liabilities Covered by Reported Assets			Funded Ratio
	Active Member Contributions	Retirants & Beneficiaries	Active Members (Employer Financed Portion)			(1)	(2)	(3)	
31-Dec-03	\$3,588,664	\$11,296,520	\$11,294,577	\$26,179,761	\$27,465,615	100%	100%	100%	104.9%
31-Dec-02	3,498,672	10,129,669	12,022,048	25,650,389	27,497,464	100	100	100	107.2
31-Dec-01	3,344,107	8,684,734	11,629,916	23,658,757	27,505,494	100	100	100	116.3
31-Dec-00	3,182,776	8,148,876	8,370,626	19,702,278	26,094,306	100	100	100	132.4
31-Dec-99	2,989,489	7,779,993	8,322,358	19,091,840	23,624,467	100	100	100	123.7
31-Dec-98	2,904,232	7,200,000	8,253,667	18,357,899	20,670,711	100	100	100	112.6

Solvency



Analysis of Financial Experience

Gains & Losses in Accrued Liabilities Resulting from Differences Between Assumed Experience and Actual Experience

Type of Activity	2003	2002	2001	2000
Gain/(Loss) from Investment Earnings	\$ (1,034,701)	\$ (1,204,242)	\$ 182,272	\$ 1,294,335
Demographic Assumptions	9,889	15,798	(333,766)	61,092
Pay Increases different than assumptions	182,236	(23,957)	108,201	(28,655)
Other	(63,390)	(27,614)	481,469	151,443
Gain/(Loss) During Year From Financial Experience	(905,966)	(1,240,015)	438,176	1,478,215
Non Recurring Items:				
Contributions in excess of Requirements		148,463	52,060	-
Changes in Actuarial Methods and assumptions	564,365	(27,506)	(348,789)	-
Removal of 30 and Out Funding	-	-	-	340,798
Act 2001 - 9 Benefits			(2,735,791)	
Retiree COLA	(31,000)	(621,300)	-	-
Composite Gain/(Loss)	<u>\$ (372,601)</u>	<u>\$ (1,740,358)</u>	<u>\$ (2,594,344)</u>	<u>\$ 1,819,013</u>

Summary of Plan Provisions

Benefit and Contribution Provisions as of December 31, 2003

The State Employees' Retirement System makes provision for retirement, disability, and death benefits for all State employees and certain other eligible groups. The major provisions may be summarized as follows:

Eligible Employees

- Class A All regular State employees and employees of certain Commissions and Authorities and employees of state-owned educational institutions and the Pennsylvania State University (unless such employees have joined the Public School Employees' Retirement System or TIAA-CREF) hired before July 1, 2001 who did not elect into the Class AA membership as of December 31, 2001. This excludes Judges, and District Justices who have elected Class E-1 or Class E-2.
- Class AA All regular State employees who are hired after July 1, 2001, and former Class A State employees hired before July 1, 2001 who elected into Class AA as of December 31, 2001. This includes employees of certain Commissions and Authorities and employees of state-owned educational institutions and the Pennsylvania State University (unless such employees have joined the Public School Employees' Retirement System or TIAA-CREF), but excludes State Police Troopers, Judges, and District Justices, and Legislators with Class D-3 or D-4.
- Class C Liquor Law enforcement officers and other officers and certain employees of the State Police who have been members and employees continuously since prior to March 1, 1974.
- Class D-3 Members of the General Assembly who have been members and employees continuously since prior to March 1, 1974.
- Class D-4 Legislators who are elected after July 1, 2001, and legislators hired before July 1, 2001 who elected into this class, excluding Class D-3 members.
- Class E-1 Judges
- Class E-2 District Justices

Age and Service Requirements for Superannuation (full formula benefits)

- Class AA/A Age 60, with three years of service, except for members of the General Assembly, enforcement officers, correction officers, psychiatric security aids, and officers of the Delaware River Port Authority; for whom the requirement is age 50 with three years of service. Members of Class AA/A with 35 years of credited service are entitled to full formula benefits regardless of age. State Police Officers can retire on full benefits after age 50 or with 20 years of service. Capitol Police and Park Rangers can retire on full benefits at age 50 with 20 years of Capitol Police or Park Ranger service.

- Class C Age 50, with three years of service.
- Class D-3 Age 50, with three years of service.
- Class D-4 Age 50, with three years of service.
- Class E-1 Age 60, with three years of service; or 35 or more years of credited service, regardless of age.
- Class E-2 Age 60, with three years of service; or 35 or more years of credited service, regardless of age.

Formula for Superannuation Annuity

The standard single-life annuity for most members is 2% of the high three-year average salary of the member multiplied by years and fractions of credited service multiplied by the Multiplier of the Class of membership. The annuity paid to a member shall not exceed the member's highest salary during any period of 12 consecutive months of creditable service.

The multiplier for each of the major classes are as follows

<u>Class</u>	<u>Multiplier</u>	
A	1.00	For State Police with years of service between 20 and 25, the minimum annuity is 50% of highest annual salary. With more than 25 years of service the benefit is a minimum of 75% of highest annual salary.
AA	1.25	
C	1.00	For State Police with years of service between 20 and 25, the minimum annuity is 50% of highest annual salary. With more than 25 years of service the benefit is a minimum of 75% of highest annual salary.
D-3	3.75	
D-4	1.50	
E-1	2.00	For each of the first 10 years of judicial service dropping to 1.5 for each subsequent year of judicial service.
E-2	1.50	For each year of judicial service.

NOTE: There are conditions under which long-service members or members retiring at advanced ages may receive somewhat larger benefits than those described above. Further, benefit limitations exist for most members of Class D-3.

STATISTICAL



*Trend Data**

	2003	2002	2001	2000	1999	1998
Contribution Rates						
Employer**	1.07%	0.00%	0.00%	1.39%	5.00%	6.70%
Member	6.25%	6.25%	5.00%	5.00%	5.00%	5.00%
Contributions:						
Employer	\$ 68,669	50,831	76,709	168,002	270,718	310,501
Member	\$ 308,014	304,233	240,528	231,666	224,928	221,618
Average Annual Compensation	\$ 44,519	43,631	42,172	41,110	39,698	38,898
Market Value of Assets	\$24,535,949	20,879,559	24,706,063	27,880,467	28,093,181	24,123,358
Actuarial Value of Assets	\$27,465,615	27,497,464	27,505,494	26,094,306	23,624,267	20,670,711
Accrued Actuarial Liability	\$26,179,761	25,650,389	23,658,757	19,702,278	19,091,840	18,357,899
Funded Ratio	104.9%	107.2%	116.3%	132.4%	123.7%	112.6%
Total Benefits and Refunds	\$ 1,632,346	1,430,417	1,245,129	1,176,785	1,229,348	1,062,155
Average*** Pension	\$ 17,192	15,445	13,656	12,935	12,520	12,027
Annuitants and Beneficiaries	94,412	91,228	89,217	88,392	88,043	85,834
Active Participants	109,018	111,059	109,716	109,470	108,035	108,893

* All Dollar amounts are in thousands, except Average Pension and Average Annual Compensation.

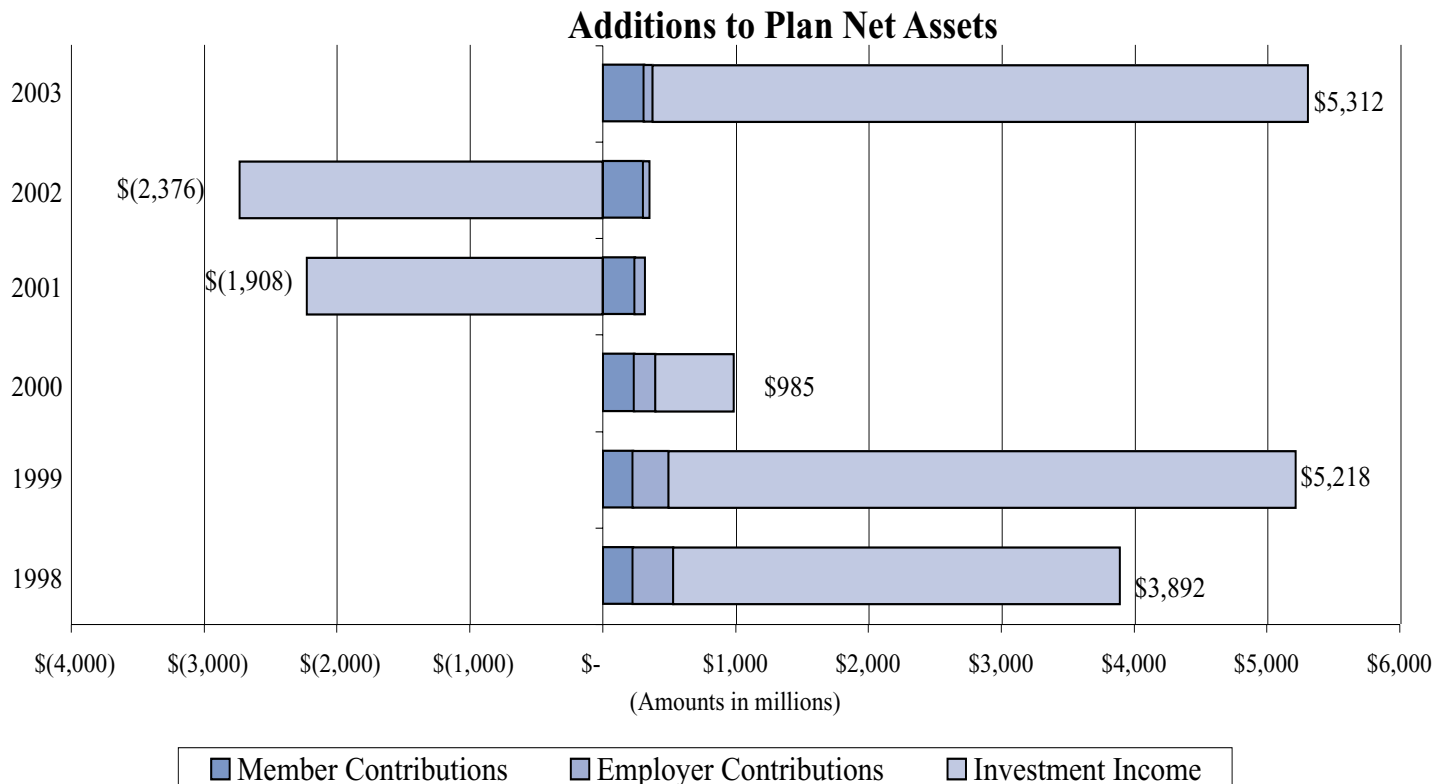
** Employer rate represents the rate in effect at December 31.

*** Average pension amount represents average annual pension for members who have reached superannuation.

Schedule of Additions to Plan Net Assets

Years Ended December 31, 2003 through 1998
(Dollar Amounts in thousands)

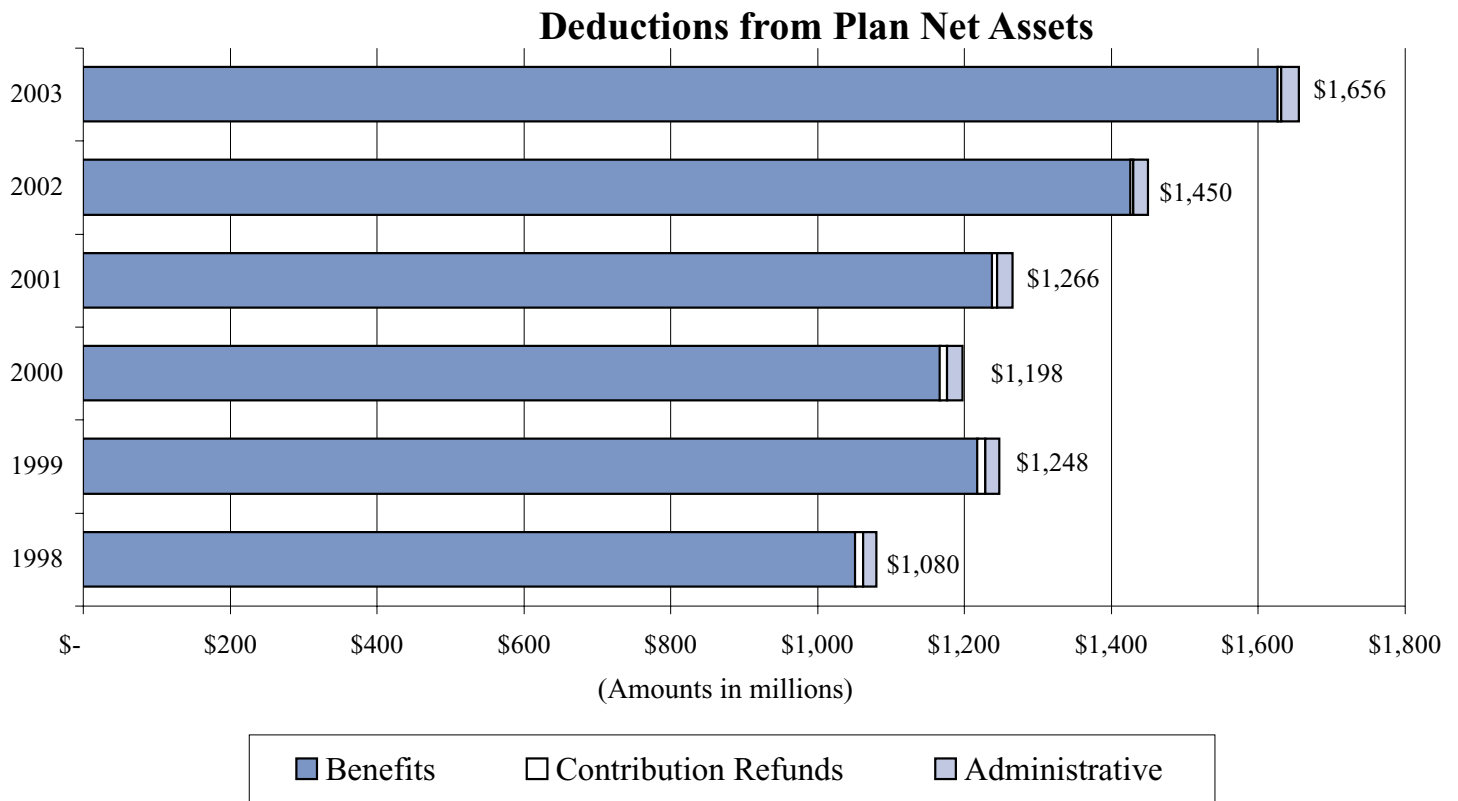
Year Ending	Member Contributions	Employer Contributions		Net Investment Income	Total
		Dollars	% of Annual Covered Payroll		
2003	\$ 308,014	\$ 68,669	1.4%	\$ 4,935,699	\$ 5,312,382
2002	304,233	50,831	1.0%	(2,731,295)	(2,376,231)
2001	240,528	76,710	1.7%	(2,225,627)	(1,908,389)
2000	231,667	168,002	3.7%	585,712	985,381
1999	224,928	270,718	6.3%	4,722,671	5,218,317
1998	221,618	310,501	7.3%	3,359,844	3,891,963



Schedule of Deductions from Plan Net Assets

Years Ended December 31, 2003 through 1998
(Amounts in thousands)

Year	Benefits	Refund of Contributions	Administrative	Total
2003	\$ 1,627,231	\$ 5,115	\$ 23,646	\$ 1,655,992
2002	1,426,257	4,160	19,856	1,450,273
2001	1,237,953	7,176	20,887	1,266,016
2000	1,166,897	9,888	21,309	1,198,094
1999	1,218,133	11,215	19,146	1,248,494
1998	1,050,870	11,285	18,221	1,080,376



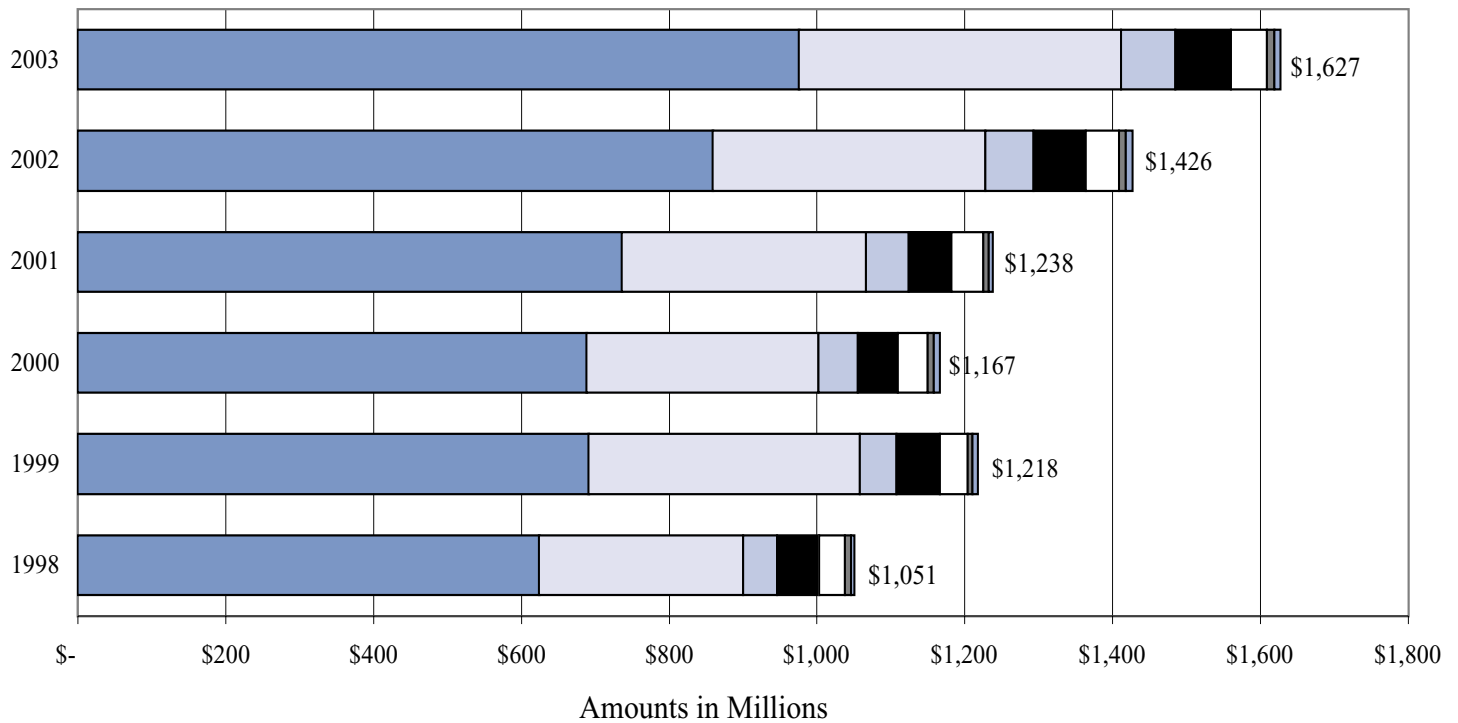
Schedule of Benefit Expenses by Type

Years Ended December 31, 2003 through 1998

(Amounts in thousands)

Year	Retirement		Death	Disability	Survivor	Beneficiary	Transfers & Other	Total
	Normal	Early						
2003	\$976,147	\$436,345	\$75,368	\$72,880	\$48,687	\$9,876	\$7,928	\$1,627,231
2002	859,078	368,778	70,703	64,789	45,439	8,902	8,568	1,426,257
2001	735,919	331,445	57,744	57,254	42,689	8,115	4,787	1,237,953
2000	688,410	314,014	53,785	54,112	40,037	7,948	8,591	1,166,897
1999	690,840	366,515	58,675	50,496	36,830	7,283	7,494	1,218,133
1998	623,980	276,428	57,465	45,691	34,681	7,527	5,098	1,050,870

Benefits by Type



■ Normal
■ Early
■ Disability
■ Death
■ Survivor
■ Beneficiary
■ Transfers & Other

Schedule of Retired Members by Type of Benefit

As of December 31, 2003

Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	Type of Retirement					
			1	2	4	5	6	7
\$ 1 to 500	\$ 7,689,107	30,219	9,683	818	14,555	624	4,386	153
501 to 1,000	17,733,341	24,334	13,891	3,520	4,811	264	1,740	108
1,000 to 1,500	17,739,532	14,435	8,499	1,304	3,891	108	572	61
1,500 to 2,000	15,172,292	8,755	4,935	519	3,043	35	205	18
2,000 to 2,500	12,562,263	5,638	3,431	176	1,879	24	121	7
2,500 to 3,000	9,401,927	3,437	2,250	86	1,032	18	48	3
Over 3,000	30,738,518	7,594	5,491	64	1,930	34	72	3
Totals	\$ 111,036,980	94,412	48,180	6,487	31,141	1,107	7,144	353

Type of Retirement

1 - Superannuation

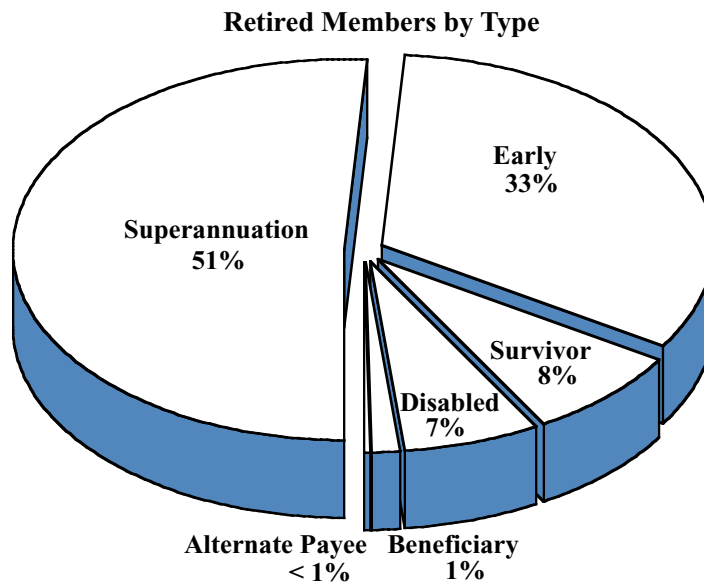
2 - Disabled

4 - Early

5 - Beneficiary

6 - Survivor

7 - Alternate Payee



Schedule of Retired Members by Option

As of December 31, 2003

Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	Option Selected					
			FRA	1	2	3	4	Other
\$ 1 to 500	\$ 7,689,107	30,219	7,760	11,558	6,907	2,717	625	652
501 to 1,000	17,733,341	24,334	8,324	7,918	4,268	2,412	1,098	314
1,000 to 1,500	17,739,532	14,435	4,275	4,643	2,654	1,704	1,022	137
1,500 to 2,000	15,172,293	8,755	2,554	2,625	1,444	1,214	865	53
2,000 to 2,500	12,562,263	5,638	1,582	1,531	875	881	736	33
2,500 to 3,000	9,401,927	3,437	996	893	558	551	411	28
Over 3,000	30,738,518	7,594	2,620	1,804	914	1,206	1,006	44
Totals	\$111,036,981	94,412	28,111	30,972	17,620	10,685	5,763	1,261

Options

FRA - Full Retirement Allowance

Opt. 1 - Annuity for Life with beneficiary receiving remainder of Present Value when member dies.

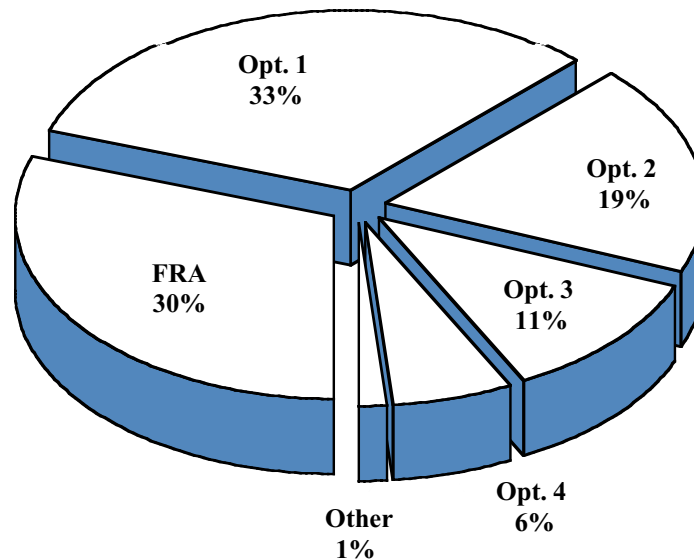
Opt. 2 - Annuity for Life with beneficiary receiving same annuity when member dies.

Opt. 3 - Annuity for Life with beneficiary receiving one half the members annuity amount when member dies.

Opt. 4 - Member designs a different plan approved by SERS not covered under the above option.

Other - Death Benefit and Domestic Relation Order

Retired Members by Option



Schedule of Average Annual Benefit Payment Amounts

As of December 31, 2003

Age	Superannuation		Early Retirement		Disability		Beneficiary and Survivor	
	Male	Female	Male	Female	Male	Female	Male	Female
Under 25	-	-	-	-	-	-	\$ 9,383	\$ 7,056
25-29	-	-	\$ 588	\$ 644	-	-	20,087	8,136
30-34	-	-	1,359	1,075	\$10,568	\$ 9,302	19,964	10,575
35-39	-	-	2,074	1,395	11,398	8,949	5,618	11,624
40-44	-	-	3,485	2,475	12,042	11,284	7,568	8,076
45-49	-	-	6,270	3,870	12,378	12,541	5,818	7,739
50-54	\$29,480	\$27,366	10,563	7,053	14,243	13,381	6,238	8,131
55-59	35,947	31,822	19,054	11,262	13,998	13,582	6,715	9,846
60-64	31,302	21,661	19,123	12,718	11,830	10,434	7,207	11,330
65-69	23,234	15,886	14,258	9,744	9,527	8,971	7,232	9,178
70-74	19,774	12,322	13,985	9,214	9,787	7,722	7,917	8,645
75-79	16,477	10,425	12,678	7,820	9,435	7,265	6,137	7,111
80-84	13,588	8,683	11,935	7,763	8,518	6,542	5,640	5,736
85-89	11,322	7,824	11,005	9,077	8,558	6,678	5,330	5,009
90 over	11,796	8,543	10,116	9,399	5,326	5,427	3,666	4,595
Total	\$20,709	\$12,665	\$15,017	\$ 8,702	\$12,008	\$10,969	\$6,935	\$7,086

	Superannuation	Early Retirement	Disability	Beneficiary and Survivor
Total Average Pension	\$17,192	\$12,008	\$11,466	\$7,072
Total Average Age: Male & Female	73.9	60.4	59.9	75.3

Schedule of Participating Employers

As of December 31, 2003

Administrative Office-PA Courts
Bloomsburg University Community Activities
Board of Probation and Parole
Bucks County Community College
Bucks County Health Department
Bucks County Intermediate Unit
California University Student Association
Cambria County Area Community College
Capitol Preservation Committee
Center for Rural Pennsylvania
Central Susquehanna Intermediate Unit
Chester County Health Department
Civil Service Commission
Clarion University Student Association
Community College of Allegheny County
Community College of Philadelphia
Delaware County Community College
Delaware River Joint Toll Bridge
Delaware River Port Authority
Delaware Valley Regional Planning Commission
Department of Aging
Department of Agriculture
Department of Banking
Department of Community & Economic Development
Department of Conservation & Natural Resources
Department of Corrections
Department of Education
Department of Environmental Protection
Department of General Services
Department of Health
Department of Labor and Industry
Department of Public Welfare
Department of Revenue
Department of State

Department of the Auditor General
Department of Transportation
Department of Military and Veterans Affairs
East Stroudsburg University Student Association
Edinboro University Services Inc.
Environmental Hearing Board
Erie County Health Department
Executive Offices
Fish and Boat Commission
Game Commission
Governor's Office
Harrisburg Area Community College
Historical and Museum Commission
House Appropriations Committee(D)
House of Representatives
Independent Regulatory Review Commission
Indiana University Student Co-op
Insurance Department
Joint Legislative Conservation Committee
Joint State Government Commission
Kutztown University Student Services
Lancaster-Lebanon Intermediate Unit
Legislative Budget & Finance Committee
Legislative Data Processing Center
Legislative Reference Bureau
Lehigh Carbon Community College
Lieutenant Governor's Office
Liquor Control Board
Local Government Commission
Lock Haven University Student Co-op
Luzerne County Community College
Luzerne Intermediate Unit
Mansfield University Community Services
Milk Marketing Board

Schedule of Participating Employers

As of December 31, 2003
Continued

Millersville Student Services	Public Utility Commission
Montgomery County Community College	Reading Area Community College
Northampton Community College	Riverview Intermediate Unit
Office of Attorney General	Securities Commission
Office of Liquidations	Senate of Pennsylvania
Pennsylvania College of Technology	Shippensburg Student Association
Pennsylvania Convention Center Authority	Slippery Rock Student Government
Pennsylvania Health Care Cost Containment Council	State Employees ' Retirement System
Pennsylvania Housing Finance Agency	State Ethics Commission
Pennsylvania Emergency Management Agency	State Public School Building Authority
Pennsylvania Higher Education Assistance Agency	State System of Higher Education
Pennsylvania Infrastructure Investment Authority	State Tax Equalization Board
Pennsylvania Municipal Retirement System	Susquehanna River Basin Commission
Pennsylvania Port Authority	Treasury Department
Pennsylvania Public Television Network Commission	Thaddeus Stevens College of Technology
Pennsylvania State Police	Turnpike Commission
Pennsylvania State University	U.S. Property & Fiscal Office for Pennsylvania
Port Authority Transit Corporation	West Chester University Student Services
Public School Employees ' Retirement System	Westmoreland County Community College

NOTES





**State Employees' Retirement System
P.O. Box 1147
Harrisburg, PA 17108-1147**